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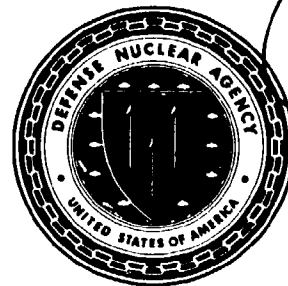
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**Chemical Weapons Convention Inspections of  
Private Facilities  
Application of United States Environmental and Safety Laws**

**Jerry R. Stockton  
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1501 BDM Way  
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**November 1993**

**Technical Report**

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## **EXECUTIVE SUMMARY**

The on-site inspection provisions of the Chemical Weapons Convention (CWC) must be executed in compliance with legal obligations to protect the environment and public safety. Federal implementing legislation can expedite fulfillment of these obligations in accord with domestic statutory requirements.

During both routine and challenge inspections, inspectors will be authorized to take samples of virtually any substance in an inspected facility. Under the CWC, inspectors could take samples of substances not ordinarily sampled by that facility and from areas other than production areas. CWC sampling may cause some chemicals to be released possibly in violation of the facility's permit. Releases of certain chemicals could also trigger obligations to notify the relevant environmental authorities of the risks relating to accident prevention, emergency response, and potential liability.

CWC sampling activities will likely invoke the application of the primary environmental and safety statutes in the United States. These include: the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Emergency Planning and Community Right to Know Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Occupational Safety and Health Act, and the Hazardous Materials Transportation Act.

Under the Clean Air Act, emitters of listed pollutants into the air must obtain a permit. A facility permitted to release air toxics might face repermitting if CWC sampling causes it to release more and/or different pollutants than are allowed by its permit. Facilities with advance notice of a CWC inspection, such as declared facilities, may be able to avoid significant difficulties by complying with the expedited minor permit modification procedures. Moreover, any facility where an identified hazardous substance is present in more than a threshold amount must prepare and implement a risk management plan to prevent, detect, and respond to accidental releases of these substances. Although the obligation to comply with these regulations is a preexisting legal requirement, CWC inspection activities could cause a facility to fail to comply with its own plan if the plan does not account for such inspections.

Under the Clean Water Act, dischargers of any regulated pollutant into a waterway of the United States must obtain a permit. Additional pretreatment requirements apply to pollutants discharged into a publicly owned treatment works (POTW). Because CWC sampling activities may cause an inspected facility to discharge new or different pollutants into its wastewater stream, an inspected facility may be required to obtain a permit modification. When a facility knows, or has reason to know, of a release or potential release that is not permitted, the Comprehensive Environmental, Response, Compensation, and Liability Act requires prompt notification of the proper authorities, including an affected POTW. The relevant authorities vary depending on the character of the release.



The Resource Conservation and Recovery Act (RCRA) regulates the management of solid hazardous waste that a CWC inspection may generate. Strict requirements apply to the generators and transporters of hazardous waste and to storage, treatment, and disposal facilities. Samples and other small quantities of hazardous waste may be exempt from RCRA requirements under certain conditions. A facility subject to CWC inspection may already hold a permit to store, treat, or dispose of hazardous waste. If that facility plans to manage the waste generated by a CWC inspection, a permit modification may be required to list the specific wastestream that could result from CWC activities. Special procedures provide for minor and temporary permit modifications, including notice to the regulatory agency, interested persons, and written approval by the regulatory agency. A facility faced with possible non-compliance due to a CWC inspection may also be granted a temporary emergency permit in the event of imminent danger to public health or the environment.

The potential for release of certain regulated substances triggers the requirements of the Emergency Planning and Community Right-To-Know Act (EPCRA). EPCRA enables citizens and local governments to obtain information concerning hazardous substances potentially threatening their communities, and requires preparation of plans to cope with emergencies relating to hazardous materials. Through a series of forms and declarations, EPCRA requires industry to divulge information about substances at their facilities and creates a bureaucratic system to distribute that information. Facilities must inform local authorities of environmental releases and take steps in response.

The Occupational Safety and Health Act (OSHA) and the Hazardous Materials Transportation Act (HMTA) are pertinent to protecting public safety. OSHA protects worker safety by imposing occupational safety and health standards, employee training and education requirements, and by strict enforcement against employers found in violation of OSHA's guidelines. OSHA regulations identify hazardous substances, equipment, and activities found in the workplace and establish procedures to ensure the safety of employees and prevent catastrophic accidents. CWC inspectors will have to observe safety regulations established at the inspected site during verification activities. The introduction of new substances or equipment may require facility owners to take additional steps to inform and train facility personnel. Many OSHA regulations apply to the storage and handling of hazardous materials and, accordingly, each facility will have an occupational safety and health program with which the inspection team must comply.

If CWC sampling activities involve transporting samples of hazardous materials for analysis, treatment, storage, or disposal off-site, those samples must be transported in accordance with the HMTA. Chemical agents that are classified as "poisonous liquids or gases" must be packaged according to certain specifications and can only be transported by appropriate methods.

Perhaps the most complex environmental and safety issue to be faced in the CWC "implementing legislation" is the role that state and local regulations and regulators should play in the inspection process. Environmental and safety regulation in the United States is

characterized by interaction between the federal government and state governments. Typically, Congress establishes a nationally uniform statutory scheme, approves a program formulated by the states, and then delegates the enforcement of the regulatory program to the states. A clause in each statute allows states to adopt standards more stringent than the federal standards. To maintain primary enforcement authority, states must submit a plan that meets minimum national standards.

Two problems are created by this structure. First, because each state operates under a unique approved program, environmental and safety regulation, including permit requirements, is not uniform throughout the fifty states. This lack of uniformity could pose a problem for facility owners and CWC inspectors because substances and activities may be regulated differently in different states. Uniformity can only be achieved by implementing legislation that specifies sampling regulations for CWC inspections. Facility owners and CWC inspectors could anticipate the regulations that will apply to inspections -- making the negotiation of facility agreements and the conduct of inspections more efficient.

Second, the role that state and local authorities should have in CWC inspections must be defined. State and local government initiatives cannot interfere with CWC inspections because, under the Supremacy Clause, the CWC implementing legislation will supercede them. Thus, if some aspect of an environmental or safety regulation enacted by a state or local government that is not a part of the approved state plan were to come into conflict with the CWC, the CWC would "preempt" any state or local law with which it cannot be reconciled.

Congress can ensure that verification activities are conducted in accord with national environmental and safety standards by selecting from a broad range of options. In general, Congress should pursue three integrated policies: (1) maximize CWC compliance by making legal obligations uniform; (2) minimize burdens on facility owners by identifying foreseeable problems and exempting them from responsibility for unforeseeable consequences of inspections; and (3) clarify the role of state and local interests in a manner that allows CWC inspections to proceed without fear of unnecessary interference.

## **PREFACE**

The authors are grateful for the important contributions of the following individuals:

- Jonathan Fox, Esq., of the United States Defense Nuclear Agency
- Jerry Stockton of BDM International Inc.
- Lisa Traczyk of Argonne National Laboratory
- S. William Grimes, Vladimir Gary Peric, and Stephen Koslow of DePaul University College of Law

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## SECTION 1 INTRODUCTION

This Report examines the legal implications under United States environmental and safety regulations of conducting verification activities called for by the Chemical Weapons Convention (CWC).<sup>1</sup> The CWC grants international inspectors unprecedented authority to test and sample hazardous chemicals at private facilities but requires that inspections be conducted in accord with domestic environmental and safety laws. Since procedures for and limitations on such testing and sampling are not yet final, it is crucial to determine precisely which domestic obligations may apply to CWC verification.

The United States has developed and implemented sophisticated policies to protect the environment and ensure the safety of individuals. The vast array of federal, state and local regulations governing handling and emission of hazardous substances recognizes the importance of protecting the environment and public safety. There is no reason why the CWC should contravene those policies -- to do so would only weaken efforts to accomplish the treaty's important goals.

This Report focuses on the issues raised by CWC verification of non-production at private facilities where chemical weapons are not stored and will not be destroyed. Issues raised by the storage or destruction of chemical weapons are beyond the scope of this study,<sup>2</sup> as are issues raised by verification of non-production at government facilities.<sup>3</sup> These

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<sup>1</sup>This study is based on the September 23, 1992 version of the United Nations Conference on Disarmament: Draft Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, U.N. Doc. A/47/27 (23 September 1992) [hereinafter *CWC*]. This version of the CWC was signed by 130 nations in Paris France on January 13, 1993. As of April 1, 1992, 141 nations have signed the CWC. A key part of the CWC for this analysis is the Annex on Implementation and Verification [hereinafter *Verification Annex*] which specifies the details of the CWC on-site inspection scheme.

<sup>2</sup>For example, this Report will not discuss the requirement to develop an environmental impact statement pursuant to the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 et. seq., in regard to issues associated with the destruction of chemical weapons -- an activity that will be undertaken by the federal government at federal destruction and incineration facilities. See *Chemical Stockpile Disposal Program Final Programmatic Environmental Impact Statement*, January 1988. It should be noted that the EPA has recently announced a proposed rulemaking to identify when military munitions and ordnance chemical warfare agents become hazardous wastes subject to Federal hazardous waste transportation, storage, treatment, and disposal rules, and may also identify management standards for such wastes. See *Rule Identifying When Military Munitions*

activities raise significantly different questions as to the protection of the environment and public safety that warrant separate treatment.

Six additional sections comprise the remainder of this Report. Section 2 presents a brief overview of the CWC. Section 3 describes the CWC provisions that call for sampling at private facilities and compares those procedures with typical industrial sampling. Section 4 describes the environmental laws that are most likely to apply to the CWC, including the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Resource Conservation and Recovery Act, and the Emergency Planning and Community Right to Know Act. Section 5 discusses how federal statutes that protect public safety, the Occupational Safety and Health Act and the Hazardous Materials Transportation Act, will most likely apply to CWC inspections. Section 6 examines the difficulties presented by the role of the states in United States environmental and safety regulation. Finally, Section 7 presents the conclusions and recommendations of this Report.

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Become Hazardous Wastes and Management Standards for Such Wastes, 58 Fed. Reg. 25,045 (proposed Apr. 26, 1993).

<sup>3</sup>See generally CHEMICAL WEAPONS (CW) TREATY VERIFICATION TECHNOLOGY RESEARCH AND DEVELOPMENT, Chemical Research Development & Engineering Center, DNA-05/91/017D1 (1991).



## SECTION 2

### OVERVIEW OF THE CHEMICAL WEAPONS CONVENTION

The CWC has two goals. First, it mandates the declaration and destruction of existing chemical weapons stockpiles and production facilities.<sup>4</sup> Destruction of chemical weapons must begin within two years and be completed not later than ten years after the CWC takes effect.<sup>5</sup> Subject to environmental and safety restrictions,<sup>6</sup> each State Party may destroy its weapons and facilities by any means it chooses, so long as the destruction can be verified.<sup>7</sup>

Second, the CWC seeks to deprive states of the industrial capability to resume chemical weapons production and storage. Verifying nonproduction of chemical weapons is the core of the CWC. Even State Parties with no chemical weapons to be destroyed must comply with the verification measures.<sup>8</sup> While each State Party has the right to produce and use chemical weapons precursors for legitimate commercial, medical, and research purposes, such production and use carries the concomitant obligation to ensure that these chemicals are not used for purposes prohibited by the CWC.<sup>9</sup> Verification of activities not prohibited by the CWC entails an elaborate mechanism for monitoring all production and acquisition of various chemicals by signatory nations.<sup>10</sup>

In order to accomplish its goals, the CWC creates the Organization for the Prohibition of Chemical Weapons (the "Organization"), an international body that will govern the production capabilities and activities of State Parties in order to ensure that the objectives of the CWC are, in fact, being met.<sup>11</sup> The Organization will be a powerful international

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<sup>4</sup>CWC, *supra* note 1, art. I, §§ 2-4.

<sup>5</sup>*Id.* art. IV, § 6. The destruction of chemical weapons production facilities must begin within one year and be completed not later than ten years after the CWC takes effect. *Id.* art. V, § 8. Provision has been made for the extension of this deadline for up to five years if certain conditions are met. See Verification Annex, *supra* note 1, pt. IV(A), C(24)-(28).

<sup>6</sup>CWC, *supra* note 1, art. IV, § 10; art. V, § 11.

<sup>7</sup>Verification Annex, *supra* note 1, pt. IV(A), C(13)-(14); pt. V, B(11), C(44)(a).

<sup>8</sup>See generally CWC, *supra* note 1, art. VI.

<sup>9</sup>*Id.* § 1.

<sup>10</sup>*Id.* §§ 2-8.

<sup>11</sup>*Id.* art. VIII.

regime, vested with broad legislative, investigative, and judicial responsibilities.<sup>12</sup> Taken as a whole, it signifies a systematic introduction of international law enforcement into chemical weapons control.

## 2.1 CWC VERIFICATION.

As the foundation of its scheme for verifying that new chemical weapons are not being produced, the CWC categorizes a wide range of industrial chemicals into three Schedules based on their suitability for use in weaponry and their legitimate commercial value.<sup>13</sup> State Parties must make initial and annual declarations of the total amount of each scheduled chemical produced, consumed, imported, or exported.<sup>14</sup> These declarations must also include the purposes for which these chemicals are obtained or processed, as well as extensive information about production facilities.<sup>15</sup> The disclosure requirements vary according to the applicable Schedule for the chemicals at each facility.<sup>16</sup>

The principal methods of verifying the accuracy of declarations and non-production are "routine inspections" and "challenge inspections." Routine inspections permit the Technical Secretariat to verify that annual declarations for "declared facilities" are accurate. The two goals of routine inspections are to deter violations without hampering the economic or technological development of State Parties,<sup>17</sup> and to compile sufficient accurate

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<sup>12</sup>The Organization will comprise three bodies. The Conference of State Parties will have jurisdiction to enact rules of procedure, evaluate compliance and resolve issues regarding the scope of the CWC. The Executive Council will oversee activities on a day-to-day basis, including supervising verification. The Technical Secretariat will have primary responsibility for monitoring and inspecting facilities that could become involved in illegal chemical weapons production. *Id.*

<sup>13</sup>*See id.* Annex on Chemicals, pt. III, A.

<sup>14</sup>*Id.* art. VI, §§ 3-6.

<sup>15</sup>*Id.*

<sup>16</sup>State Parties must declare annually the locations, inventories, and past and future activities of Schedule 1 facilities. Verification Annex, *supra* note 1, pt. VI, D. State Parties must also annually declare various national data regarding their Schedule 2 chemicals, as well as the location of each Schedule 2 facility, the types, quantities and destinations of its Schedule 2 chemicals, and the owners, capacities, purposes and plans of its Schedule 2 facilities. *Id.* pt. VII, A. Declaration requirements for Schedule 3 facilities and "other relevant" facilities are similar. *Id.* pt. VIII, A; pt. IX, A.

<sup>17</sup>CWC, *supra* note 1, art. VI, §§ 10-11.

information to permit a high degree of accord among the parties as to what specific conduct constitutes a violation.

Challenge inspections have the goal of "clarifying and resolving any questions concerning possible non-compliance."<sup>18</sup> If a State Party suspects noncompliance by another, that State Party may request an inspection of any facility or location.<sup>19</sup> "Managed access" procedures allow protection of sensitive equipment, information or areas of inspected sites that are not related to chemical weapons.<sup>20</sup>

Both types of inspections share the common goal of verifying the nonproduction of chemical weapons without interfering with the legal rights of State Parties or their citizens. The CWC's guiding principle is that on-site inspections be implemented in a manner that avoids undue intrusion into activities engaged in for peaceful purposes.<sup>21</sup>

## 2.2 CWC IMPLEMENTATION.

The CWC will be open to signature by all states.<sup>22</sup> After signing, State Parties will need to ratify the treaty in conformity with their respective constitutional processes.<sup>23</sup> The treaty will enter into force 180 days after the 65th state ratifies it.<sup>24</sup> However, the treaty cannot come into force until two years after it has been opened for signature.<sup>25</sup>

State Parties must bring the CWC into effect by taking steps well beyond ratification. First, each State Party must adopt, in accordance with its constitutional processes, the

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<sup>18</sup>*Id.*

<sup>19</sup>*Id.* art. IX, § 8.

<sup>20</sup>Verification Annex, *supra* note 1, pt. X, B(46)-(52).

<sup>21</sup>CWC, *supra* note 1, art. VI, § 10.

<sup>22</sup>*Id.* art. XVIII.

<sup>23</sup>*Id.* art. XIX.

<sup>24</sup>*Id.* art. XXI, § 1.

<sup>25</sup>*Id.* Any state which does not sign the CWC before it enters into force may accede to the treaty at any time. *Id.* art. XX. For any State Party that ratifies or accedes to the CWC after it has come into force, the treaty will be binding upon that state thirty days after the deposit of the instrument of ratification or accession. *Id.* art. XXI, § 2.

measures necessary to implement its CWC obligations.<sup>26</sup> In particular, each State Party must prohibit natural and legal persons in its territory or under its jurisdiction from undertaking any activity prohibited by the Convention.<sup>27</sup> This obligation requires enactment of legislation that will include administrative as well as penal measures.<sup>28</sup> Moreover, State Parties must cooperate with other State Parties and provide appropriate legal assistance necessary to implement its CWC obligations.<sup>29</sup> Finally, State Parties are required to designate or establish a National Authority to serve as a liaison with the Organization.<sup>30</sup>

### 2.3 CWC OBLIGATIONS TO PROTECT THE ENVIRONMENT AND PUBLIC SAFETY.

Several CWC provisions expressly require State Parties to protect the environment and public safety. In general, a State Party must "assign the highest priority to ensuring the safety of people and to protecting the environment" during the implementation of its CWC obligations.<sup>31</sup>

First, when transporting, sampling, storing or destroying chemical weapons, the CWC requires each State Party to "assign the highest priority to ensuring the safety of people and to protecting the environment,"<sup>32</sup> and to perform these obligations "in accordance with its national standards for safety and emissions."<sup>33</sup> The exact same obligations apply to State Parties during the destruction of chemicals weapons production facilities<sup>34</sup> and during the non-prohibited production of Schedule 1 chemicals.<sup>35</sup>

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<sup>26</sup>*Id.* art. VII, § 1.

<sup>27</sup>*Id.* § 1(a).

<sup>28</sup>*Id.* § 1(a), (c). Thus, the CWC calls for the criminalization of prohibited conduct.

<sup>29</sup>*Id.* § 2.

<sup>30</sup>*Id.* § 4.

<sup>31</sup>*See, e.g., id.* art. VII, § 3.

<sup>32</sup>*Id.* art. IV, § 10.

<sup>33</sup>*Id.*

<sup>34</sup>*Id.* art. V, § 11.

<sup>35</sup>Verification Annex, *supra* note 1, pt. VI, C(7).

Second, the CWC also recognizes the importance of domestic environmental permitting, in the context of chemical weapons production facilities, by requiring State Parties to provide, in their detailed destruction plans, any environmental permits which have been obtained.<sup>36</sup> Finally, the CWC requires inspection teams to observe safety regulations established at the inspection site<sup>37</sup> and specifies that hazardous waste samples must be transported in accordance with "relevant regulations."<sup>38</sup>

Thus, many provisions of the CWC either require State Parties to make protection of the environment and people a priority or, in relation to some activities, explicitly require compliance with national environmental and safety standards. Based on these explicit provisions, CWC sampling and sample analysis conducted during CWC verification must comply with domestic environmental and safety regulations.

Nevertheless, State Parties have discretion to determine how they will "assign the highest priority." It is not at all clear that State Parties, including the United States, will decide that applying domestic environmental and safety regulations is the best way to "assign the highest priority." Indeed, State Parties may formulate a number of alternatives to fulfill their CWC obligations in this area.<sup>39</sup>

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<sup>36</sup>See *id.* pt. IV (A), C(32).

<sup>37</sup>*Id.* pt. II, E(43).

<sup>38</sup>*Id.* pt. II, B(11)(d).

<sup>39</sup>This suggestion stems from the notion that "when a nation undertakes an international obligation, that nation is entitled to determine for itself its method of implementing or fulfilling that obligation, so long as it does so in good faith." Jackson, *Status of Treaties in Domestic Legal Systems: A Policy Analysis*, 86 A.J.I.L. 310 (1992) (quoting L. HENKIN, CONSTITUTIONALISM, DEMOCRACY AND FOREIGN AFFAIRS 62 (1990)). For instance, a State Party might decide that the best way to "assign the highest priority" to these concerns would be to draft all new environmental and safety regulations that pertain only to CWC activities. Another State Party could decide that applying some subset of its domestic regulations would satisfy its obligation to "assign the highest priority."

### SECTION 3 CWC SAMPLING ACTIVITIES

Sampling at inspected facilities is the CWC verification activity most likely to trigger the requirements of national environmental and safety standards. The most detailed and expansive CWC provisions concerning sampling are contained in the Verification Annex.<sup>40</sup> It contains general sampling procedures,<sup>41</sup> sampling procedures for routine inspections,<sup>42</sup> special sampling procedures for challenge inspections,<sup>43</sup> and procedures for inspections in cases of alleged use of chemical weapons.<sup>44</sup> This section discusses the CWC provisions for inspections and sampling in order to identify those activities that could possibly result in emissions of hazardous chemicals, generation of hazardous wastes, or the transportation of hazardous substances to off-site locations.

#### 3.1 GENERALLY APPLICABLE SAMPLING PROCEDURES.

Several sampling procedures apply to both routine and challenge inspections, except where modified by specific inspection provisions.<sup>45</sup> The inspection team must operate in accordance with CWC procedures and any individual facility agreement reached between the State Party and the Organization.<sup>46</sup> At the request of the inspection team, representatives of

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<sup>40</sup>Verification Annex, *supra* note 1.

<sup>41</sup>See generally *id.* pt. II.

<sup>42</sup>See generally *id.* pt. III.

<sup>43</sup>See generally *id.* pt. X.

<sup>44</sup>See generally *id.* pt. XI. Sampling related to the alleged use of chemical weapons is beyond the scope of this piece and therefore is not discussed herein.

<sup>45</sup>*Id.* pt. II, H(66).

<sup>46</sup>*Id.* pt. II, E(38). Facility agreements are only required for Schedule 1 and Schedule 2 facilities and are optional for Schedule 3, "other," and PSF facilities. Facility agreements provide detailed arrangements which govern inspections at each facility. *Id.* pt. III, A(8). Model facility agreements, included in previous drafts of the CWC, outline inspection procedures such as: observation of activities at the facility, examination of equipment, identification of technological changes, examination of documentation and records, installation of monitoring equipments, validation of analytical equipment, etc. See United Nations Conference on Disarmament: *Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament*, U.N. Doc. CD 1108 (27 August 1991), app. II, Models for Agreements, pts A-C. The Preparatory Commission will be responsible for developing model facility agreements which they must then submit to the Conference of the State Parties for

the inspected State Party or the inspected facility must take samples in the presence of the inspectors.<sup>47</sup> If agreed to in advance by the State Party or the facility, inspectors may take samples themselves.<sup>48</sup> Where possible, the inspection team will analyze the samples on-site using their own equipment.<sup>49</sup> The inspected State Party is expected to assist in the analysis.<sup>50</sup> The inspection team is also entitled to request that any analysis be performed on-site in its presence.<sup>51</sup>

If considered necessary, the inspection team may transfer samples for off-site analysis<sup>52</sup> to laboratories designated by the Organization.<sup>53</sup> Whatever procedure is followed, the inspected State Party is entitled to retain portions of any samples taken.<sup>54</sup> The inspected State Party also has the right to take duplicate samples and to be present when samples are analyzed on-site.<sup>55</sup>

The Director-General of the Technical Secretariat is primarily responsible for ensuring the security, integrity and preservation of the samples.<sup>56</sup> The Director-General also

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consideration and approval. *CWC, supra* note 1, art. VIII, § 21(i).

<sup>47</sup>*Verification Annex, supra* note 1, pt. II, E(52).

<sup>48</sup>*Id.*

<sup>49</sup>*Id.* pt. II, E(53).

<sup>50</sup>*Id.*

<sup>51</sup>*Id.*

<sup>52</sup>*Id.* pt. II, E(55).

<sup>53</sup>Any off-site analysis must be performed by at least two designated laboratories. This sampling must be expeditious and all samples must be accounted for, the unused portions being returned to the Technical Secretariat. *Id.* pt. II, E(56)-(57).

<sup>54</sup>*Id.* pt. II, E(54).

<sup>55</sup>*Id.*

<sup>56</sup>*Id.* pt. II, E(56).

must ensure that samples transferred off-site remain confidential.<sup>57</sup> In so doing, the Director-General must comply with the procedures found in the "Inspection Manual."<sup>58</sup>

The results of the laboratory analysis will be compiled by the Technical Secretariat and must be included in a final inspection report.<sup>59</sup> The report must also include information detailing the equipment and methodology used by the designated off-site laboratories.<sup>60</sup>

### 3.2 SCHEDULE 1 FACILITY INSPECTIONS.<sup>61</sup>

A State Party may not produce, acquire, retain or use Schedule 1 chemicals except as are applied to research, medical, pharmaceutical or protective purposes.<sup>62</sup> Production is to be carried out at a single small-scale facility approved by the State Party.<sup>63</sup> In addition, other facilities may possess limited quantities of Schedule 1 chemicals for research, medical, or pharmaceutical purposes.<sup>64</sup>

Verification at the single small-scale facility will confirm whether quantities of Schedule 1 chemicals produced are correctly declared and, in particular, that their aggregate amount does not exceed one tonne.<sup>65</sup> Verification at facilities outside the single small-scale facility will verify that the identity and quantity of chemicals produced, processed or consumed are correctly declared and consistent with the declared purpose (i.e., that no Schedule 1 chemical is diverted for other purposes).<sup>66</sup> The facilities are subject to systematic

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<sup>57</sup>*Id.*

<sup>58</sup>*Id.* This manual compiles additional inspection procedures developed by the Technical Secretariat. *Id.* pt. I, 15.

<sup>59</sup>*Id.* pt. II, E(58).

<sup>60</sup>*Id.*

<sup>61</sup>*See generally id.* pt. VI.

<sup>62</sup>*Id.* pt. VI, A(2).

<sup>63</sup>*Id.* pt. VI, C(8).

<sup>64</sup>*Id.* C(11).

<sup>65</sup>*Id.* E(21).

<sup>66</sup>*Id.* E(28).



verification through on-site inspection and monitoring with on-site instruments.<sup>67</sup> Facility agreements must be prepared for these facilities.<sup>68</sup>

### 3.3 SCHEDULE 2 FACILITY INSPECTIONS.<sup>69</sup>

Each State Party must declare all plant sites that produced, processed or consumed, any chemical which appears on Schedule 2 during any of the previous three calendar years.<sup>70</sup> Declared facilities that produced, processed, or consumed threshold quantities of Schedule 2 chemicals during any of the previous three calendar years will also be subject to on-site inspection.<sup>71</sup>

The general aim of inspections at Schedule 2 facilities includes verifying the absence of any Schedule 1 chemical; consistency with declarations of levels of production, processing or consumption of Schedule 2 chemicals; and non-diversion of Schedule 2 chemicals for activities prohibited under the CWC.<sup>72</sup> Draft facility agreements for the plant sites to be routinely inspected will be prepared, unless the inspected State Party and the inspection team agree that such agreements are not needed.<sup>73</sup> The Technical Secretariat must choose the plant

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<sup>67</sup>*Id.* E(22),(29).

<sup>68</sup>*Id.* E(25), (31). *See supra* note 46.

<sup>69</sup>*See generally id.* pt. VII.

<sup>70</sup>The facilities which must make declarations are divided into three categories based on the following levels of production, processing or consumption: a) more than 1 kilogram of a chemical designated with a "\*" in Schedule 2, Part A, b) more than 100 kilograms of any other chemical listed in Schedule 2, Part A; or c) more than 1 tonne of a chemical listed in Schedule 2, Part B. *Id.* pt. VII, A(3)(a)-(c).

<sup>71</sup>The facilities subject to on-site inspection are divided into three categories based on the following levels of production, processing or consumption: a) more than 10 kilograms of a chemical designated with a "\*" in Schedule 2, Part A; b) more than 1 tonne of any other chemical listed in Schedule 2, Part A; or c) more than 10 tonnes of a chemical listed in Schedule 2, Part B. *Id.* B(12)(a)-(c).

<sup>72</sup>*Id.* B(15).

<sup>73</sup>*Id.* B(17).

site to be inspected in a way that precludes prediction of exactly when it will be inspected.<sup>74</sup> No plant site can receive more than two inspections per calendar year.<sup>75</sup>

Sampling and analysis activities at Schedule 2 facilities will verify the absence of undeclared scheduled chemicals.<sup>76</sup> For facilities with facility agreements, access is determined by the agreement.<sup>77</sup> Access to other parts of the plant site may be granted upon request to clarify ambiguities that arise during an inspection.<sup>78</sup> If the ambiguity still cannot be clarified, the inaccessible site in question may be photographed for the purpose of clarifying its nature and function, but no provision is made for sampling.<sup>79</sup>

If there is no facility agreement or if access is not covered by the facility agreement, and if an ambiguity cannot be removed during an inspection, access to these areas will be granted according to the provisions for challenge inspections.<sup>80</sup> Thereunder, the extent and nature of access to a particular place or places within the facility will be negotiated between

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<sup>74</sup>*Id.* B(21).

<sup>75</sup>*Id.* B(22).

<sup>76</sup>Areas to be inspected may include:

- (a) Feedstock delivery and storage;
- (b) Chemical processing areas where manipulative processes are performed upon the reactants prior to addition to the reaction vessels;
- (c) Feed lines to reaction vessels, associated valves, flow meters, etc.;
- (d) The external aspect of the reaction vessels and ancillary equipment;
- (e) Lines from the reaction vessels leading to long- or short-term storage or to equipment further processing the declared Schedule 2 chemicals;
- (f) Control equipment associated with the processes;
- (g) Equipment and areas for waste and effluent handling; or
- (h) Equipment and areas for disposition of chemicals not up to specification.

*Id.* B(28)(a)-(h).

<sup>77</sup>*Id.* B(25).

<sup>78</sup>*Id.* pt. II, E(51).

<sup>79</sup>*Id.* pt. II, E(51).

<sup>80</sup>*See generally id.* pt. X.

the inspection team and the inspected State Party on a "managed access" basis<sup>11</sup> whereby the inspection team and the inspected State Party will negotiate the extent of access to any particular place or places and the particular inspection activities, including sampling, to be conducted by the inspection team.<sup>12</sup>

### 3.4 SCHEDULE 3 FACILITY INSPECTIONS.<sup>13</sup>

Each year, State Parties must declare all plant sites that produced, during the previous calendar year, more than 30 tonnes of a Schedule 3 chemical.<sup>14</sup> On-site inspections will be carried out at declared plant sites which produced, during the previous calendar year, more than 200 tonnes aggregate of any Schedule 3 chemical above the declaration threshold of 30 tonnes.<sup>15</sup> Plant sites to be inspected will be selected randomly by the Technical Secretariat.<sup>16</sup> Facility agreements are not required unless requested by the inspected State Party.<sup>17</sup> The aim of these inspections is to verify that activities are consistent with the information provided in the declarations -- particularly the absence of any Schedule 1 or undeclared Schedule 2 chemicals.<sup>18</sup>

Areas subject to inspection are the same as for Schedule 2 facilities. If the inspection team requests access to other parts of the plant site to clarify ambiguities, the extent of access must be agreed upon between the inspection team and the inspected State Party.<sup>19</sup>

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<sup>11</sup>*Id.* B(38). For the provisions relating to "managed access" *see id.* B(46)-(52). In general, "managed access" provides for selective access to protect of sensitive equipment, information or areas, not related to chemical weapons.

<sup>12</sup>*Id.*

<sup>13</sup>*See generally id.* pt. VIII.

<sup>14</sup>*Id.* pt. VIII, A(3).

<sup>15</sup>*Id.* B(12).

<sup>16</sup>*Id.* B(14).

<sup>17</sup>*Id.* B(19).

<sup>18</sup>*Id.* B(17).

<sup>19</sup>*Id.* B(20).

### 3.5 OTHER AND PSF CHEMICAL PRODUCTION FACILITIES.<sup>90</sup>

Each State Party must declare all plant sites that produced by synthesis during the previous calendar year more than 200 tonnes of unscheduled discrete organic chemicals or more than 30 tonnes of an unscheduled discrete organic chemical containing the elements phosphorus, sulfur or fluorine (hereinafter referred to as "PSF-plants" or "PSF-chemicals").<sup>91</sup> On-site inspections of randomly selected plants may be carried out at any plant that produced 200 tonnes of unscheduled discrete organic chemicals or PSF-chemicals.<sup>92</sup> No plant site can receive more than two inspections per year.<sup>93</sup> No provision is made for a facility agreement, unless requested by the inspected State Party.<sup>94</sup> Access to areas other than particular process plants for PSF-chemicals is provided under the provisions for challenge inspections.<sup>95</sup> If access is requested to clarify ambiguities, the extent of such access shall be as agreed upon between the inspection team and the inspected State Party.<sup>96</sup>

### 3.6 CHALLENGE INSPECTIONS.<sup>97</sup>

If a State Party suspects noncompliance by another, the suspicious State Party may request an inspection of any "facility or location,"<sup>98</sup> declared or not. Challenge inspections are relatively unconstrained and are intended to clarify and resolve questions about compliance.<sup>99</sup>

The inspection team has the right to conduct various activities to secure the site in preparation for a challenge inspection,. The inspection team may begin sit monitoring

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<sup>90</sup>See generally *id.* pt. IX.

<sup>91</sup>*Id.* A(1).

<sup>92</sup>*Id.* B(1), (9). In other words, any PSF plant that produced between 30 and 200 tonnes must be declared, but not inspected.

<sup>93</sup>*Id.* B(12).

<sup>94</sup>*Id.* B(16).

<sup>95</sup>*Id.* B(17).

<sup>96</sup>*Id.*

<sup>97</sup>See generally *id.* pt. X.

<sup>98</sup>CWC, *supra* note 1, art. IX, § 8.

<sup>99</sup>*Id.*

procedures once it arrives at the alternative or final perimeter, whichever comes first.<sup>100</sup> These procedures can continue until the inspection is complete.<sup>101</sup> Among possible exit monitoring measures, the inspection team is entitled to take samples if agreed to by the inspected State Party.<sup>102</sup>

While conducting perimeter activities during a challenge inspection, the inspection team has the right to take wipes, air, soil or effluent samples<sup>103</sup> from the time it arrives at the relevant perimeter until the completion of the inspection.<sup>104</sup> Such analysis is restricted to the presence or absence of chemicals listed in Schedules 1, 2 and 3 or appropriate degradation products.<sup>105</sup>

Access during a challenge inspection is conducted on a "managed access" basis.<sup>106</sup> The inspection team and the inspected State Party will negotiate the extent of access to any particular place or places and the particular inspection activities, including sampling, to be conducted by the inspection team.<sup>107</sup> However, if the challenge inspection is at a Schedule 1 facility, the degree of access and activities within the final perimeter will be governed by the applicable facility agreement.<sup>108</sup> If there is no facility agreement, negotiation of access and activities are governed by the general inspection guidelines.<sup>109</sup> The extent and nature of access beyond that granted for inspections under those provisions will be negotiated between the inspection team and the inspected State Party on the same managed access basis.<sup>110</sup>

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<sup>100</sup>Verification Annex, *supra* note 1, pt. X, B(25).

<sup>101</sup>*Id.* B(31).

<sup>102</sup>*Id.* B(27)(c).

<sup>103</sup>*Id.* B(36)(b).

<sup>104</sup>*Id.* B(35).

<sup>105</sup>*Id.* C(48)(e).

<sup>106</sup>*Id.* B(38). *See also supra* note 81.

<sup>107</sup>*Id.*

<sup>108</sup>Verification Annex, *supra* note 1, pt. X, B(51)(a).

<sup>109</sup>*Id.* B(51)(b).

<sup>110</sup>*Id.* B(51)(c).

### **3.7 DIFFERENCES BETWEEN SAMPLING FOR CWC PURPOSES AND TYPICAL INDUSTRY SAMPLING.**

The objectives of sampling and monitoring for the chemical industry differ from those of CWC-related sampling and monitoring. Sampling by the chemical industry, for its own purposes, is principally intended to ensure production efficiency, product quality, and environmental health and safety. In contrast, CWC-related sampling from the process or production system in a declared facility is meant to ensure that no Schedule 1 chemicals are being produced; that quantities of Schedule 2, Schedule 3, discrete organic chemicals or PSF-chemicals produced are consistent with declarations; and that scheduled chemicals are not being diverted for purposes in violation of the CWC. To accomplish these goals, CWC inspections will entail two types of sampling: 1) sampling to identify chemicals, and 2) sampling for the presence of undeclared chemicals.

Much of typical industry sampling relies on in-place process analyses designed for quality control of the current production cycle at a given facility. Taking these process samples from a facility producing a declared chemical will allow CWC inspectors to identify and verify the presence of that chemical. However, because CWC verification inspections are meant to confirm the absence of scheduled chemicals, the inspectors may not be able to rely solely on the in-place process analyses.

To confirm the absence of scheduled chemicals, the second type of sampling required, CWC inspectors may wish to take samples from areas other than production facilities at a single facility. For example, though a facility may routinely sample specific production lines for quality assurance, it may never have had occasion to sample areas of concern to CWC inspectors, including: feed lines, temporary process storage areas, wastestreams, or raw material storage containers. These samples may reveal that the chemical is not one addressed by the CWC. However, taking samples from these new areas may also generate new waste streams or discharges that are hazardous substances or result in a hazardous waste which, in the United States, must be managed within regulatory standards.

Therefore, CWC-related sampling could, in theory, result in emissions or waste products from almost any chemical manufactured, processed, or consumed within the United States. Whether sampling to verify that a declared chemical is present or sampling to verify the absence of declared chemicals, the inspection team may be required to comply with applicable environmental and safety requirements different from those with which the facility ordinarily must comply.

#### **3.7.1 Process Sampling.**

Most of the larger chemical plants in the United States rely on some form of distributed control system for automating batch processing. Virtually every batch process is automated to some degree, from a manually controlled process aided by a few sensors, to a

remote computer-controlled process with multiple sensors and analyzers. Even in cases where most functions are performed manually, sensors prompt the operator to perform steps such as heating, mixing, or transfer of a batch to another vessel.<sup>111</sup>

CWC verification accomplishes systematic verification through monitoring with on-site instruments of production facilities,<sup>112</sup> destruction facilities<sup>113</sup> and Schedule 1 facilities.<sup>114</sup> Continuous monitoring is not required at Schedule 2, 3, or "other" facilities. In the absence of continuous monitoring, periodic sampling during on-site inspections will reveal nothing about the use of plant equipment at other times.<sup>115</sup> In addition, since modern automated batch processing equipment is computer-controlled, if the inspected facility's intentions are unknown or suspect, there is no method for ensuring the credibility of facility-owned instruments.<sup>116</sup> The objective of monitoring the chemical production process at Schedule 2 and 3 facilities for the purpose of CWC compliance could be achieved, in many cases, through non-intrusive monitoring of flows, temperature, or weight.

Many of these points were illustrated in the System Field Demonstration -- a test conducted by the U.S. Army Chemical Research, Development and Engineering Center (CRDEC) in order to assess and demonstrate the effectiveness of CWC verification procedures at a typical Schedule 2 facility. The System Field Demonstration (SFD) took place at the DuPont Chambers Works Complex in Deepwater, New Jersey, 9-13 March 1992 and was conducted pursuant to a negotiated facility agreement.<sup>117</sup> In that SFD, process

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<sup>111</sup>Procyk, Lyia M., "Batch Process Automation", Chemical Engineering, Vol. 98, No. 5; May 1991, Page 110.

<sup>112</sup>Verification Annex, *supra* note 1, pt. V, C(48)-(57).

<sup>113</sup>*Id.* pt. IV(A), D(42).

<sup>114</sup>*Id.* pt. VI, E(22).

<sup>115</sup>See CHEMICAL WEAPONS TREATY VERIFICATION TECHNOLOGY RESEARCH AND DEVELOPMENT: SYSTEM FIELD DEMONSTRATION REPORT ACTIVITIES NOT PROHIBITED BY THE CONVENTION (SCHEDULE 2 CHEMICAL PRODUCTION: SCENARIO 7) (EAI Report 05/92/028F July, 1992) [hereinafter "CRDEC Field Report"]. See also Conference on Disarmament, *Ad hoc* Committee on Chemical Weapons, FINLAND: *Report on the National Trial Inspection of Finland at a civilian chemical facility*, U.N. Doc. CD/CW/WP.233 (4 April 1989) [hereinafter "Finland Report"].

<sup>116</sup>See CRDEC Field Report, *supra* note 115. See also Finland Report, *supra* note 115.

<sup>117</sup>The results of the SFD can be found in the CRDEC Field Report, *supra* note 115. The facility agreement was based on a model contained in an earlier draft of the CWC. See United Nations Conference on Disarmament, *Report of the Ad Hoc Committee on Chemical Weapons*

monitoring systems using three types of non-intrusive sensors (thermocouples, current transformers and ultrasonic flow meters) were installed at the inspected facility prior to the routine inspection. Due to the facility's safety and engineering requirements, intrusive process monitors were not allowed. This limitation against intrusive monitoring devices prevented the use of pressure sensors, without which it would be difficult to obtain necessary quantity information from flexible batch processes where both temperature and pressure data would be needed. Therefore, the limitation of non-intrusive sensors for CWC verification would have to be offset by process sampling and analyses during routine inspections.

### 3.7.2 Analytical Instrumentation.

The analytical tasks required to verify CWC compliance at Schedule 2 and 3 facilities include: 1) monitoring of known compounds, 2) unambiguous identification of the known compounds, and 3) detailed structural analysis of unknown chemicals. The choice of a particular type of instrument depends on a number of factors, including requirements for sensitivity, reliability and portability. The Report of the Technical Group on Instrumentation<sup>118</sup> discusses the instrumentation methods suitable for CWC analytical purposes.

The choice of instrumentation is important to environmental compliance. Equipment used to extract a gaseous sample from a process or storage tank may result in a release at the time of sampling, or, after the analysis is complete, a release of any remaining sample or analysis residue. Similarly, equipment used to extract a liquid sample from a process, storage tank or wastestream may result in a release to the facility's wastewater system at the time of sampling,<sup>119</sup> or, after the analysis is complete, the remaining liquid material or chemical analysis residue may need to be discarded. In addition, equipment used to analyze solids may result in leftover samples or analysis residue which may also need to be discarded. Finally, any equipment that incorporates filters in the analysis process (i.e., charcoal or beads) may generate contaminated filter material that may be a hazardous waste.<sup>120</sup>

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to the Conference on Disarmament, U.N. Doc. CD/1108, app. II, Models for Agreements (27 August 1991). The negotiated facility agreement used for the SFD can be found in Appendix B of the CRDEC Field Report.

<sup>118</sup>*Report of the Technical Group on Instrumentation, Annex on Instruments, CD/CW/WP.272 (22 January 1990) at 39-45.*

<sup>119</sup>Prior to obtaining a proper, uncontaminated sample, a pipe or sampling point must be purged and the purged liquid discarded.

<sup>120</sup>Any wastes generated at a laboratory from the analysis of a sample of hazardous waste must also be identified as a hazardous waste under the "contained-in" policy. It is possible that some of the wastes from the analysis (such as a pipet) may meet the definition of an empty



The problem is illustrated by comparing gas chromatography (GC) with high performance liquid chromatography (HPLC). In GC the sample is injected into the analytical instrument, usually at elevated temperatures, where it vaporizes and passes through a chromatographic column. In the SFD, the inspection team used a Viking Spectrotrak 600, a portable analytical-grade gas chromatograph that is equipped with a mass spectrometer (MS) detector of modular design. The Viking, used to analyze both process samples and environmental samples, operates in five different modes allowing for direct injection of liquid samples, desorption of air samples from tubes or air samples taken directly from the environment into the injector. Using the desorption mode the sample can be introduced into the MS via a heated membrane separator. Liquid samples are injected into the instrument using a syringe.<sup>121</sup> Since the material being analyzed is vaporized, there is no sample residue from a gas chromatograph.

However, HPLC analysis is carried out at ambient temperature using liquid effluents rather than a flowing gas stream. HPLC uses a liquid reactant that passes through the machine and a liquid solvent-sample mixture results. This solvent-sample mixture, consisting of reactant and small amounts of each liquid sample tested, must be discarded as a waste. Similarly, solid absorbent tubes and Draeger tubes may be used for air sampling. These tubes are small, but may be filled with beads or other material. The fill material absorbs the chemical and changes color or makes some other indication of the presence of the constituent. This absorbent is then contaminated with the chemical, which may make the tubes hazardous waste.

### 3.8 SUMMARY.

The sampling of materials at a facility in the United States during CWC sampling may result in the release of a pollutant or the generation of a waste that is governed by environmental or safety laws. In addition, personnel will be required to perform operations that are governed by domestic safety regulations. Because ordinary industry sampling and CWC verification sampling differ in purpose and kind, CWC inspectors may require samples from different areas and use different techniques and instruments, thus triggering different legal requirements. It cannot be assumed that sampling under the CWC would be similar to an inspected facility's normal operations in terms of permitted emissions, waste generation or personnel exposure.

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container, and, therefore, would not be subject to hazardous waste regulations. RCRA/Superfund Hotline Questions and Answers, RCRA-236, RCRA Regulations and Keyword Index, compiled and published by McCoy and Associates, Inc. (1992).

<sup>121</sup>CRDEC Field Report, *supra* note 115, at C-42.

CWC sampling activities could trigger the application of domestic environmental regulation in two ways. First, equipment approved by the Technical Secretariat<sup>122</sup> for obtaining and analyzing samples may be designed such that: 1) gaseous materials can escape between the sampling point and the equipment, or 2) liquid materials could be discharged due to purging, overdrafts or spills while the material is being transferred to the sampling equipment. Second, after analysis is completed, excess sample material, analysis residues, and filters or materials that become contaminated with the material being sampled constitute wastes which must be properly discarded.

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<sup>122</sup>Verification Annex, *supra* note 1, pt. II, C(28).

## SECTION 4

### COMPLIANCE WITH FEDERAL ENVIRONMENTAL OBLIGATIONS

This discussion focuses on the possibility that, in the course of sampling chemicals during a CWC verification inspection, some chemicals may be occasionally released. Such releases must either go into the air, down a pipe and into water, or into the ground. Depending on which medium receives this pollution, the release will be regulated by the Clean Air Act (CAA),<sup>123</sup> the Clean Water Act (CWA)<sup>124</sup> and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),<sup>125</sup> or the Resource Conservation and Recovery Act (RCRA).<sup>126</sup>

Each environmental statute discussed here authorizes the U.S. Environmental Protection Agency (EPA) to reduce emissions of pollution by requiring every polluter to employ designated control techniques and equipment. Polluters who comply with those requirements may receive a permit to emit. Correspondingly, any emission of a regulated substance that is not permitted is illegal. Since there may be a spill or release in the course of a CWC inspection which generates an emission that is not covered by the permit, the facility owner may be obligated to notify relevant environmental authorities of the risks associated with an upcoming inspection and seek permission for an unpermitted release.

In addition, each statute contains provisions for dealing with extraordinary events, including unplanned releases by requiring prompt notice to appropriate federal and state authorities. A release could trigger obligations for the facility owner concerning accident mitigation, emergency response, and/or liability under the Emergency Planning and Community Right-To-Know Act (EPCRA)<sup>127</sup> and the Comprehensive Environmental Response, Compensation, and Liability Act.

#### 4.1 CLEAN AIR ACT.

Under the Clean Air Act (CAA), the EPA establishes air quality standards to protect public health, with an adequate margin of safety, from any known or anticipated effects of a

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<sup>122</sup> U.S.C. § 7401 *et seq.*

<sup>124</sup> 33 U.S.C. § 1300 *et seq.*

<sup>125</sup> 42 U.S.C. §§ 9601 - 9675.

<sup>126</sup> 42 U.S.C. § 6901 *et seq.*

<sup>127</sup> 42 U.S.C. §§ 11001 - 11050.

regulated pollutant.<sup>128</sup> These air quality standards are implemented by requiring installation of pollution control technology. The criteria vary depending on whether the facility is new<sup>129</sup> or existing<sup>130</sup> and whether the facility is in an area that has<sup>131</sup> or has not<sup>132</sup> achieved federal air quality standards.<sup>133</sup>

The EPA must also establish standards for emission of hazardous air pollutants.<sup>134</sup> The EPA must develop maximum achievable control technology (MACT) standards for categories of major sources -- defined as those that emit more than 10 tons per year of a single toxic or more than 25 tons per year of any combination of toxics<sup>135</sup> -- and approximately 350,000 area sources.<sup>136</sup> State and local air-pollution agencies will have primary responsibility to make sure industrial facilities meet the standards.<sup>137</sup>

Permits transform these legal standards into enforceable requirements for each source. Each stationary source with sufficient emissions of substances to be subject to regulation

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<sup>128</sup>42 U.S.C. § 7409. Standards have been set for sulfur dioxide, particulate matter, carbon monoxide, ozone, hydrocarbons and nitrogen dioxide and lead ("criteria pollutants"). 40 C.F.R. § 50.

<sup>129</sup>42 U.S.C. § 7411(f); 40 C.F.R. § 60.

<sup>130</sup>42 U.S.C. § 7411(d).

<sup>131</sup>42 U.S.C. Part C -- Prevention of Significant Deterioration of Air Quality §§ 7470-7492.

<sup>132</sup>42 U.S.C. Part D -- Plan Requirements for Nonattainment Areas §§ 7501-7515.

<sup>133</sup>The EPA has promulgated primary standards to protect public health and secondary standards to protect public welfare. 42 U.S.C. § 7409.

<sup>134</sup>42 U.S.C. § 7412; 40 C.F.R. § 61.

<sup>135</sup>42 U.S.C. § 7412(a)(1).

<sup>136</sup>42 U.S.C. § 7412(k). This estimate of the number of area sources is based on the Proposed Initial List of Categories of Sources under § 112(c)(1) of the Clean Air Act Amendments issued by the EPA. 57 Fed. Reg. 32,293 (July 21, 1992).

<sup>137</sup>42 U.S.C. § 7412(l).

must obtain a permit to operate that assures compliance with the law,<sup>138</sup> unless it qualifies for an exemption.<sup>139</sup> The CAA permit program is designed to be administrated by the states.<sup>140</sup>

#### 4.1.1 Obligations to Modify Permits.

A facility permitted for toxic releases may face repermitting in the event that CWC sampling causes it to release more and/or different pollutants than allowed by its permit. If the inspected facility has a permit to emit the chemicals being sampled, but the release during sampling exceeds the facility's permitted levels, or if the facility's permit does not cover the chemicals being sampled (perhaps they are not otherwise released), the release during sampling would therefore not be permitted. Finally, as permits contain operational specifications, sampling activity might cause a facility to deviate from those specifications and thus violate its permit.

If the facility has advance notice that the CWC inspection may cause a permit exceedance, it can protect itself by properly notifying relevant authorities. The minor permit modification procedure allows states to create a highly limited exemption for increases in emissions below threshold levels.<sup>141</sup> A source that complies with this procedure is insulated

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<sup>138</sup>42 U.S.C. Subchapter V -- Permits § 7661. The EPA issued its Operating Permit Program regulation on July 21, 1992. 57 Fed. Reg. 32,250 (July 21, 1992). In most cases, state governments will implement a permit program which may be more stringent or extensive than the CAA's minimum criteria but may not be less stringent. 40 C.F.R. § 70.1(c); 57 Fed. Reg. 32,295 (July 21, 1992).

<sup>139</sup>42 U.S.C. § 7661a(a).

<sup>140</sup>States are required to submit proposed permit programs to EPA by November 15, 1993. EPA must approve or disapprove the state programs within one year. 42 U.S.C. § 7661a(d).

<sup>141</sup>These threshold levels will be set by the permitting authority and approved by EPA. Minor permit modification procedures apply only to modifications that:

- (1) Do not violate any applicable requirement;
- (2) Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- (3) Do not require a case-by-case determination of an emission limitation or other standard or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- (4) Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which it would otherwise be subject;
- (5) Are not modifications under any provision of title I of the CAA; and

from liability for having violated the permit terms that are the subject of the proposed modification.<sup>142</sup> A source may request a minor permit modification by filing a complete application demonstrating that it qualifies for such treatment, including the source's suggested draft permit. The source may make the proposed change after filing the application, unless the permitting authority objects.<sup>143</sup> Within five working days of receiving a complete permit application, the permitting authority must notify affected states of the requested permit modification and transmit the proposed permit and other necessary documents to the EPA Administrator. The EPA has 45 days to review permit modifications.<sup>144</sup>

The CAA may also apply if, in connection with a CWC inspection, an unforeseeable release occurs due to sampling. This event would not constitute a permit violation if it is an "emergency."<sup>145</sup> A facility could qualify for the defense against the charge of noncompliance provided: the permitted facility is properly operated, the permittee takes all reasonable steps to minimize levels of emissions, and the permittee must notify the permitting authority within two working days of the exceedance.<sup>146</sup>

It is worth noting that the President may exempt any stationary source from compliance with any standard or limitation concerning releases of toxic emissions for a period of not more than two years if s/he determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption may be extended for additional periods.<sup>147</sup>

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(6) Are not required by the State program to be processed as a significant modification.

40 C.F.R. § 70.7(e)(2)(i).

<sup>142</sup>40 C.F.R. § 70.7(e)(2)(v).

<sup>143</sup>*Id.*

<sup>144</sup>40 C.F.R. § 70.7(e)(2)(iii-iv).

<sup>145</sup>An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. 40 C.F.R. § 70.6 (g)(1).

<sup>146</sup>*Id.*

<sup>147</sup>42 U.S.C. § 7412 (i)(4).

#### 4.1.2 Obligations To Implement Appropriate Accident Response Strategies.

The 1990 CAA amendments require EPA to identify substances that may be accidentally released and establish a program to prevent and detect accidental releases of these air toxics.<sup>148</sup> These substances, distinct from the 189 air toxics whose emission is regulated, include at least 100 acute "hazardous"<sup>149</sup> substances (sixteen of which are enumerated in the 1990 CAA Amendments<sup>150</sup>), 62 flammable substances, and commercial explosives. Regulations to govern accidental releases of such pollutants will also be developed. Appropriate response actions are also to be identified in the regulations.

Each owner or operator of a stationary source at which a regulated substance is present in more than a threshold quantity must prepare and implement a risk management plan to detect and prevent or minimize accidental releases and to provide a prompt emergency response to protect human health and the environment.<sup>151</sup> While the CAA explicitly provides that a facility owner subject to this obligation is not required to apply for a permit, it is illegal to operate a facility without preparing a risk management plan. For purposes of CWC inspections, it is significant that such substances need only be present rather than emitted: sampling could involve substances that are not being emitted and, therefore, are not covered by a permit but which are present at the inspected facility. Accordingly, any facility possessing a regulated substance that may be subject to CWC sampling should include in its risk management plan the possibility that such substances may be accidentally released during an inspection.

#### 4.1.3 Summary.

Facilities subject to CWC inspection may be required to obtain permits to release air toxics, or they may need to modify their existing permit to accommodate releases resulting from CWC inspections. Facilities with sufficient notice of CWC inspections will be able to comply with the requirements for minor permit modifications and will be able to notify the

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<sup>148</sup>42 U.S.C. § 7412(r). The regulations will likely address the use, operation, repair, and maintenance of equipment to monitor, detect, inspect and control releases including training of personnel in the use and maintenance of equipment or the conduct of periodic inspections. The regulations will also include requirements for a risk management plan, which must include a hazard assessment, a prevention program, and a response program. 59 Fed. Reg. 5102 (Jan. 19, 1993).

<sup>149</sup>"Hazardous" substances are those which, "in the case of an accidental release, are known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment." 42 U.S.C. § 7412(r)(3).

<sup>150</sup>*Id.*

<sup>151</sup>42 U.S.C. § 7412 (r)(7)(B)(ii).

proper authorities. Facilities may also qualify for an "emergency" permit exemption if certain conditions are satisfied.

CWC inspections may require facilities to comply with accidental release provisions under the CAA. While facilities possessing sufficient amounts of regulated substances will already be subject to these regulations, CWC inspection activities may prevent the facility from following its own emergency response plan.

#### 4.2 CLEAN WATER ACT.

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The CWA prohibits the unpermitted discharge of any pollutant or combination of pollutants to waters of the United States from any point source. A pollutant is defined to include chemical wastes discharged into water.<sup>152</sup> "Priority pollutants" include 126 individual toxic pollutants contained in 65 toxic compounds or classes of toxic compounds;<sup>153</sup> conventional pollutants,<sup>154</sup> such as total suspended solids, oil and grease or pH; and nonconventional pollutants (any pollutant which is not identified as either conventional or priority, including non-priority toxic pollutants).<sup>155</sup> The EPA has promulgated regulations to establish federal technology-based effluent standards for categories and classes of point sources.<sup>156</sup> Special effluent standards are established for toxic pollutants.<sup>157</sup>

The CWA sets up the National Pollutant Discharge Elimination System (NPDES) as the means of achieving and enforcing the effluent limitations. Under NPDES, the EPA (or a state with an approved plan) issues a permit for the direct discharge of any pollutant or combination of pollutants to a watercourse provided the discharge meets all of the applicable effluent standards.<sup>158</sup> All dischargers of pollutants into navigable waters of the United States must obtain an NPDES permit. NPDES permits contain applicable effluent standards,

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<sup>152</sup>40 C.F.R. § 122.2.

<sup>153</sup>33 U.S.C. § 1317(a)(1); 40 C.F.R. § 401.15.

<sup>154</sup>33 U.S.C. § 1314(a)(4); 40 C.F.R. § 401.16

<sup>155</sup>33 U.S.C. § 1311(b)(2)(F).

<sup>156</sup>33 U.S.C. § 1311(b)(2). For conventional pollutants, the Act requires the application of the best conventional pollutant control technology (BCT), and for toxic and nonconventional pollutants, the best available technology economically achievable (BAT) is applicable.

<sup>157</sup>33 U.S.C. § 1317(a)(1); 40 C.F.R. § 129.1.

<sup>158</sup>33 U.S.C. § 1342.



monitoring requirements and standards, and special conditions for direct discharges from a facility. Applications for NPDES permits must include the effluent characteristics of the applicant's wastestream (i.e., quantitative data for certain toxic pollutants listed in the regulations).<sup>159</sup> In addition, each applicant must indicate whether it knows or has reason to believe that certain pollutants may be discharged from the facility.<sup>160</sup>

The CWA requires the EPA to promulgate pretreatment standards<sup>161</sup> for wastewaters discharged by any non-domestic operation (i.e., industrial, manufacturing or processing) into a publicly-owned treatment works (POTW).<sup>162</sup> The purpose of these standards is to prevent the discharge of pollutants that may pass through the POTW system (i.e., are not susceptible to the treatment technology used by the POTW) or interfere with the POTW system (i.e., inhibit or destroy the biological activity used for sewage treatment, contaminate sludge, or endanger the health of POTW workers).<sup>163</sup> Indirect discharges to waters which are treated by a POTW do not need an NPDES permit.<sup>164</sup> Yet, all industrial users must identify the character and volume of the pollutants they expect to discharge to the POTW and provide the POTW with periodic monitoring reports.<sup>165</sup>

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<sup>159</sup>40 C.F.R. § 122.21(g).

<sup>160</sup>40 C.F.R. § 122.21(g)(7)(iii), (iv); Tables II-V of Appendix D.

<sup>161</sup>Subchapter N - Effluent Guidelines and Standards, 40 C.F.R. §§ 400-471. Some which may apply to Schedule 1, 2 or 3 facilities are: 40 C.F.R. Part 414 - Organic Chemical, Plastics and Synthetic Fibers; Part 415 - Inorganic Chemicals Manufacturing Point Source Category; Part 439 - Pharmaceutical Manufacturing Point Source Category; and Part 455 - Pesticide Chemical Manufacturing Category Effluent Limit Guidelines.

<sup>162</sup>33 U.S.C. § 1317(b),(c). A POTW is any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrials of a liquid nature which is owned by a state or municipality. See 33 U.S.C. § 1292; 40 C.F.R. § 122.2.

<sup>163</sup>*Id.*

<sup>164</sup>40 C.F.R. § 122.3.

<sup>165</sup>40 C.F.R. § 403.12(e). All industrial users must notify the POTW, the EPA, and the state hazardous waste authorities, in writing, of any discharges into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under RCRA. 40 C.F.R. § 403.12(p). Discharges of less than 15 kg of nonacute hazardous waste do not require notification, while discharges of any amount of acute hazardous waste requires notification. Notification must include the name of the hazardous waste, the EPA hazardous waste number, and the type of discharge. *Id.*

Sampling during a CWC inspection may cause an inspected facility to discharge new or different pollutants into its wastewater stream. A facility's wastewater may go directly to a watercourse under an NPDES permit, to a privately owned treatment plant which discharges under a NPDES permit, or to a POTW under a pretreatment agreement or permit.

#### **4.2.1 Permit Modifications.**

Any interested person, including a permittee, may request a modification of a permit.<sup>166</sup> The Administrator, upon receipt of that information, may modify the permit if compliance is impossible due to events over which the permittee has little or no control and for which there is no reasonably available remedy.<sup>167</sup> The Administrator must prepare a draft permit incorporating the proposed changes. Only those conditions to be modified may be reopened when a new draft permit is prepared.<sup>168</sup>

#### **4.2.2 Notification of Authorities of Unforeseen Releases.**

All CWA permits require permittees to notify the EPA (or authorized state) as soon as they know or have reason to know that any activity has occurred, or will occur, that would result in the discharge of any toxic pollutant that is not already set forth in the permit.<sup>169</sup> Industrial users must also promptly notify the POTW prior to any substantial change in volume or character of pollutants in their discharge, including the listed characteristic hazardous wastes for which the individual user has submitted initial notification.<sup>170</sup>

Although the emergency response provisions of the CWA apply to all releases of effluents, EPA practice has limited the CWA's concern to oil spills. Since 1980, releases of hazardous substances other than oil have been treated as a problem under CERCLA. Accordingly, a facility operator must notify the National Response Center in the event a hazardous substance is released in quantities which meet or exceed applicable reportable quantities.<sup>171</sup> The National Response Center is obliged to convey the notification expeditiously to all appropriate government agencies, including the governor of any affected state.

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<sup>166</sup>40 C.F.R. § 124.5.

<sup>167</sup>40 C.F.R. § 122.62(a)(4).

<sup>168</sup>40 C.F.R. § 124.5(c)(1-2).

<sup>169</sup>40 C.F.R. § 122.42(a)(1).

<sup>170</sup>40 C.F.R. § 403.12(j).

<sup>171</sup>42 U.S.C. § 9603.

#### **4.2.3 Summary.**

CWC verification procedures could cause an inspected facility to discharge new or different pollutants. If given sufficient notice, and to avoid liability, a facility may be required to obtain a permit for the release or to modify an existing permit. Special procedures must be followed if the release will affect a POTW. At a minimum, facility owners must comply with emergency response procedures under the CWA or CERCLA.

#### **4.3 RESOURCE CONSERVATION AND RECOVERY ACT.**

The Resource Conservation and Recovery Act (RCRA)<sup>172</sup> was enacted in 1976 to regulate the management of hazardous waste, to ensure the safe disposal of wastes, and to keep records of hazardous wastes from cradle to grave. RCRA governs generators of waste, transporters of waste, and operators of waste storage, treatment or disposal facilities. The statute and its regulations address numerous issues, including: identification of hazardous wastes; tracking hazardous wastes from the point of generation, through transportation, to the site of final treatment or disposal; and management of the storage, treatment, and ultimate disposal of hazardous wastes through technical standards, performance standards, and permitting requirements.

##### **4.3.1 Generator Requirements and Exemptions.**

The key issue for CWC implementation is identifying the generator. Consider the following scenarios. First, if a sample is analyzed using the inspected facility's laboratory and the facility disposes of the waste, the facility becomes the generator. Second, if a sample is analyzed in a mobile unit brought to the site by the inspection team, and intended for disposal thereafter, the inspection team may become the generator. Third, if a sample is taken or sent to an outside laboratory, and that laboratory, after analysis, disposes of any resultant wastes, that laboratory would be the generator. Under each scenario, the party deemed to be the generator must then comply with the applicable regulations.<sup>173</sup>

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<sup>172</sup>42 U.S.C. § 6901 *et seq.*

<sup>173</sup>Standards Applicable to Generators of Hazardous Waste - 40 C.F.R. § 262.

Any person<sup>174</sup> who generates a solid waste<sup>175</sup> must determine if that waste is hazardous. If the waste is not excluded from regulation, the generator must determine if the waste is specifically listed as a hazardous waste in the regulations.<sup>176</sup> If the waste is not listed, the generator must determine if the waste has a hazardous characteristic, either by testing the waste according to the specified methods,<sup>177</sup> or by applying knowledge of the materials or the processes used to determine if that waste will have hazardous characteristics.<sup>178</sup> If any waste is generated, the regulations require that it be analyzed prior to storage, transportation or disposal. Regulations govern the levels of intrusiveness of sampling activities and the protection of confidential business information.<sup>179</sup> Under the regulations, samples can only be analyzed to extract relevant data.

Generators may store hazardous wastes at their facilities for up to ninety days without obtaining a permit if specific requirements are met.<sup>180</sup> Moreover, a generator may store up to 55 gallons of hazardous waste or one quart of acutely hazardous waste at the point of generation for an undetermined time period if it can meet additional requirements.<sup>181</sup> Unless these requirements are satisfied, any person so storing, treating, or disposing of waste must

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<sup>174</sup>Person means an individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body, 42 U.S.C. § 6903(15).

<sup>175</sup>A solid waste is any garbage, refuse, or other discarded material, (including solid, liquid, semisolid, or contained gaseous material) resulting from industrial, commercial, mining, or agricultural operations. 42 U.S.C.A. §6903(27). Discarded material is any material which has been abandoned. 40 C.F.R. § 261.2. Abandonment includes disposal, or accumulating, storing or treating before or in lieu of disposal. A spent material is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing. If the material will not be used, reused, reclaimed, or recycled, and is being held only for future disposal, then it is waste.

<sup>176</sup>40 C.F.R. § 262.11(b). This process is known as "characterization." Listed wastes are found in 40 C.F.R. § 261, Subpart D.

<sup>177</sup>40 C.F.R. § 261, Subpart C.

<sup>178</sup>40 C.F.R. § 262.11(c).

<sup>179</sup>40 C.F.R. § 260.2.

<sup>180</sup>40 C.F.R. § 262.34(a).

<sup>181</sup>40 C.F.R. § 262.34(c).

comply with a number of RCRA regulations.<sup>182</sup> Certain wastes cannot be stored indefinitely.<sup>183</sup> These restricted wastes may only be stored on-site for one year, unless the facility owner or operator can prove that storage was solely for the purpose of accumulating such quantities of the waste as are necessary to facilitate proper recovery, treatment or disposal. The regulations on restricted wastes are very complex<sup>184</sup> and require a complete examination of the land disposal restriction regulations for each waste to be stored.

Every shipment of hazardous waste transported or offered for transportation from its facility must have a manifest,<sup>185</sup> and the generator must track the manifest to ensure that a copy signed by the receiving facility is returned.<sup>186</sup> The transportation of residual samples, analyzed sample residue, or contaminated filter materials to a treatment, storage or disposal facility by anyone other than a conditionally small quantity generator<sup>187</sup> or a laboratory<sup>188</sup> must meet RCRA requirements.<sup>189</sup> A generator offering the waste for transportation must use a licensed transporter, hold its own transporter number, or inform the appropriate agency

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<sup>182</sup>See Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities, 40 C.F.R. § 264. These regulations address: general facility standards (i.e., security, inspections, personnel training, locations or siting standards, and waste analysis requirements); preparedness and prevention procedures for preventing spills; contingency plans and emergency procedures for responding to spills, fires and other disasters; manifests, records and reporting requirements; closure and post-closure plans; financial requirements for closure and liability; the use and management of containers and tanks; and the maintenance and standards for specific types of treatment and storage facilities (i.e., landfills, surface impoundments, and incinerators).

<sup>183</sup>40 C.F.R. § 268.50.

<sup>184</sup>40 C.F.R. § 268 restricts the land disposal of all hazardous wastes and specifies strict treatment standards that must be met before these wastes can be land disposed. These regulations are very complex because different types of treatment standards and different effective dates apply to numerous subcategories and treatability groups of wastes. Also, national capacity variances have been granted for certain wastes for which there are no disposal facilities, numerous case-by-case extensions have been granted for specific wastes and the restrictions do not apply where treatment standards have not yet been specified by the EPA.

<sup>185</sup>40 C.F.R. § 262, Subpart B.

<sup>186</sup>40 C.F.R. § 262, Subpart D.

<sup>187</sup>See 40 C.F.R. § 261.5(b).

<sup>188</sup>See 40 C.F.R. § 261.4(d)(2).

<sup>189</sup>40 C.F.R. § 263.10; 40 C.F.R. § 262, Subparts B and C.

that transportation is one of the hazardous waste activities conducted under its generator identification number.<sup>190</sup>

In light of the CWC requirement that samples be kept by and returned to the Technical Secretariat after analysis,<sup>191</sup> the Technical Secretariat may have to establish a special sample storage facility. If this facility is located in the United States, it may be required to obtain a permit as a RCRA storage facility unless it qualifies for an exemption under RCRA. The three most important exemptions for the purposes of the CWC are: 1) the laboratory samples exception; 2) the exemption for the disposal of wastewater mixtures; and 3) the exemption for small quantity generators.

**4.3.1.1 Laboratory Samples Exception.** A sample of solid waste, water, soil, or air that is collected only to determine its characteristics or composition may not be subject to RCRA. This is the case when the sample is: 1) transported to a laboratory for testing, 2) transported back to the sample collector after testing, 3) stored by the sample collector before transport to a laboratory for testing, 4) stored in a laboratory after testing but before it is returned to the sample collector, or 5) stored temporarily in the laboratory after testing for a specific purpose (i.e. until the conclusion of a court case or enforcement action where further testing of the sample may be necessary).<sup>192</sup> This exclusion ends and the sample becomes waste when the laboratory no longer stores the sample for one of the specific purposes allowed in the regulations.<sup>193</sup> However, a laboratory may be able to store the wastes past ninety days after analyses are completed without obtaining a permit if the sample is held for a specific purpose (e.g., awaiting the completion of a challenge to the inspection team's findings).<sup>194</sup>

**4.3.1.2 Exemption for Disposal of Wastewater Mixtures.** Certain limited mixtures of solid wastes and listed hazardous wastes contained in sample purgings, excess liquid, samples, and sample analyses residues<sup>195</sup> and wastewater are also exempt from RCRA regulation, provided the discharge is permissible under the CWA. These mixtures must not exhibit the characteristics of hazardous waste and must either: 1) be a mixture of certain types of chemicals; 2) arise from the *de minimis* losses of certain listed chemicals from manufacturing operations in which these materials are used or produced, including sample

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<sup>190</sup>40 C.F.R. § 263.11.

<sup>191</sup>Verification Annex, *supra* note 1, pt. II(E)(57).

<sup>192</sup>40 C.F.R. § 261.4(d).

<sup>193</sup>40 C.F.R. § 261.4(d)(3).

<sup>194</sup>40 C.F.R. § 261.4(d)(4).

<sup>195</sup>40 C.F.R. § 261, Subpart D.

purgings and rinsate from empty containers or from containers that are rendered empty by rinsing; or, 3) wastewater resulting from laboratory operations containing toxic wastes listed in Subpart D.<sup>196</sup> Thus, it becomes necessary to determine the characteristics of the wastewater mixture and review the facility's wastewater permit or pretreatment agreement prior to disposal.

**4.3.1.3 Conditionally Exempt Small Quantity Generator.** A generator will qualify as a "conditionally exempt small quantity generator," and not be subject to RCRA regulation, if it generates less than 100 kilograms of "nonacute" hazardous waste<sup>197</sup> or less than one kilogram of "acute" hazardous waste<sup>198</sup> in a calendar month. To be excluded from full regulation, the generator must analyze the waste,<sup>199</sup> and may not accumulate on-site more than one kilogram of acute hazardous waste or more than 1000 kilograms of non-acute hazardous waste. If the generator generates amounts in excess of these limits, all quantities of that waste become subject to full regulation.<sup>200</sup>

If a facility designated as the generator of the sample waste can meet the quantity limits for a conditionally exempt small quantity generator, the generator may dispose of the waste at any facility permitted under RCRA as a storage, treatment or disposal facility, or any facility permitted by a State to manage municipal or industrial solid waste.<sup>201</sup>

#### **4.3.2 Permit Modifications and Emergency Permits.**

If the inspected facility or third-party laboratory currently holds a permit to store, treat or dispose of hazardous wastes and plans to manage the waste in its permitted unit,<sup>202</sup> a permit modification may be required to specifically list the waste stream which may result

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<sup>196</sup>40 C.F.R. § 261.3(a)(2)(iv). Certain quantity restrictions based on the total wastewater flow from the facility apply.

<sup>197</sup>42 U.S.C. § 6921(d); 40 C.F.R. § 261.5.

<sup>198</sup>Acute hazardous wastes are those listed in 40 C.F.R. § 261.31, 261.32 and 261.33(e).

<sup>199</sup>40 C.F.R. § 262.11.

<sup>200</sup>40 C.F.R. § 261.5 (e)-(g).

<sup>201</sup>40 C.F.R. § 261.5(g)(3).

<sup>202</sup>Most permits have conditions which include: proper operations and maintenance of laboratory and process controls; notice to the issuing agency of any planned physical alterations or additions to the permitted facility; and advance notice to the issuing agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. 40 C.F.R. § 270.30.

from CWC sampling activities, even without physical change to the plant.<sup>203</sup> For instance, permits may include a list of specific hazardous wastes, and the quantities thereof, which may be stored in the facility;<sup>204</sup> to store any new or different hazardous wastes, the permittee must then request a modification of the permit.

The requirements for obtaining a permit modification depend on the level of modification that would be required.<sup>205</sup> There are a small number of modifications that may be put into effect upon notification within seven calendar days after the change is put into effect.<sup>206</sup> Even minor modifications require notice to the regulatory agency, notice to interested persons,<sup>207</sup> and written approval by the regulatory agency prior to implementing the change.<sup>208</sup> These would include storage of different wastes without the addition of units or a change in the treatment process or management standards, provided that the units have previously received wastes of the same type. If the wastes are not of the type previously received or would require additional or different management practices from those authorized in the permit, the permittee must give notice to the regulatory agency, interested persons and the public, allow a sixty-day comment period, and hold a public meeting.<sup>209</sup> The final approval to conduct the activities must be approved within ninety days for Class 2 modifications,<sup>210</sup> or within sixty days for Class 3 modifications.<sup>211</sup>

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<sup>203</sup>40 C.F.R. § 270.42.

<sup>204</sup>The applicant must specify the hazardous wastes to be treated, stored or disposed of annually. See 40 C.F.R. § 270.13(j).

<sup>205</sup>40 C.F.R. § 270.42. Appendix I sets forth the types of modifications and the class or level assigned.

<sup>206</sup>*Id.* (a)(1).

<sup>207</sup>Those persons on the facility mailing list, maintained by the Director in accordance with 40 C.F.R. 124.10(c)(viii), and the appropriate units of State and local government as specified in 40 C.F.R. 124.10(c)(ix).

<sup>208</sup>40 C.F.R. § 270.42(a)(2).

<sup>209</sup>40 C.F.R. § 270.42(b) and (c).

<sup>210</sup>40 C.F.R. § 270.42(b), for Class 2 modifications approval must be no later than 90 days after receipt of the notification request, or if the Director fails to make a decision within 120 days, the modification is automatically approved.

<sup>211</sup>40 C.F.R. § 270.42(c), for Class 3 modifications the Director must grant or deny the permit modification after the conclusion of the 60 day comment period, and an additional 45-day public comment period must be allowed after the Director's decision is issued.



If a facility failed to anticipate a noncompliance situation in modifying its permit to accommodate CWC inspections, or in the case of a challenge inspection, RCRA provides for the issuance of a temporary modification. Upon request of the permittee, the Administrator may, without prior public notice and comment, grant the temporary authorization for a modification.<sup>212</sup> To issue a temporary authorization the Administrator must find (1) the authorized activities are in compliance with the RCRA standards for owners or operators of a treatment, storage or disposal facility; and (2) temporary authorization is necessary to enable the permittee to respond to sudden changes in types or quantities of waste managed under the facility permit. Temporary authorizations cannot last for more than 180 days.

A permitted facility in an emergency situation, or a legally unpermitted facility that comes under RCRA regulations due solely to CWC inspection, may also request the issuance of a temporary emergency permit.<sup>213</sup> To issuance an emergency permit the Administrator must find an imminent and substantial endangerment to human health or the environment. The emergency permit may be oral. The emergency permit may be in effect for ninety days and must incorporate, to the extent possible and not inconsistent with the emergency situation, all RCRA requirements applicable to the proposed action. In addition, the permittee must give public notice concerning the issuance of a temporary permit.

Any finding of noncompliance with a RCRA permit, except under the terms of an emergency permit, constitutes a violation of RCRA and is grounds for enforcement action, including: permit termination, revocation, reissuance, or modification; or denial of a permit renewal application.<sup>214</sup> Filing a request for a permit modification or notifying the relevant authorities of planned changes or anticipated noncompliance will not relieve the permittee of any permit condition.<sup>215</sup>

#### 4.3.3 Summary.

Identifying the generator of hazardous waste will be critical to assessing the RCRA regulations that will apply to CWC inspections. Generators can store limited amounts of waste at their facilities for a specified period of time without obtaining a permit. If a facility wishes to transport or offer for transport, hazardous waste generated by a CWC inspection, it must fulfill all RCRA transportation requirements.

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<sup>212</sup>40 C.F.R. § 270.42(e). The director shall approve or deny the temporary authorization as quickly as practical.

<sup>213</sup>40 C.F.R. § 270.61

<sup>214</sup>40 C.F.R. § 270.30(a).

<sup>215</sup>40 C.F.R. § 270.30(i).

A facility that generates or stores hazardous waste from a CWC inspection (such as an off-site laboratory established by the Technical Secretariat) will be subject to full RCRA regulation, including requirements to secure a permit, unless it qualifies for an exemption. Exemptions apply to laboratory samples, wastewater mixtures and small quantity generators.

A facility already in possession of a RCRA permit to treat, store, or dispose of hazardous waste may be required to modify its permit to accommodate CWC inspection activities. Special procedures for minor and temporary permit modifications, including, at a minimum, notice to the regulatory agency, interested persons and written approval by the regulatory agency are available to facilities faced with a CWC inspection. To avoid possible non-compliance, a permitted or unpermitted facility might qualify for a temporary emergency permit if CWC sampling poses an imminent danger to public health or the environment.

#### **4.4 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT.**

Regardless of whether CWC verification activities result in a release of pollutants and trigger the environmental statutes discussed above, inspected facilities will be required to conform to the requirements of federal statutes prescribing notification and community involvement procedures.

The Emergency Planning and Community Right-To-Know Act (EPCRA)<sup>216</sup> recognizes the need to control toxic substances and plan for emergencies caused by releases of those substances. EPCRA requires local communities to prepare plans for dealing with emergencies relating to hazardous materials and enables members of the public and local governments to obtain information concerning potential threats in their neighborhoods posed by hazardous substances.

Under EPCRA, industry must divulge proprietary information concerning substances used at their facilities. The Act also creates a bureaucratic infrastructure to disseminate that information. While not specifying particular methods of emergency planning, EPCRA provides the tools for local governments and members of the community to develop their own emergency plans to mitigate the impact of accidental releases.

##### **4.4.1 Substances and Facilities Covered.**

EPCRA establishes state and local emergency planning committees, defines a list of extremely hazardous substances for which emergency planning and release notification must be made,<sup>217</sup> and identifies covered facilities.<sup>218</sup> These provisions define "threshold planning

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<sup>216</sup>42 U.S.C. §§ 11001-11050.

<sup>217</sup>The list of extremely hazardous substances covered by EPCRA is published by the EPA in Appendix A of the Chemical Emergency Preparedness Program ("CEPP") Interim Guidance.

quantities" (TPQs) of the chemicals that will trigger EPRCA's emergency planning and notification requirements,<sup>219</sup> and reporting requirements.<sup>220</sup>

Under EPCRA's planning notification requirements,<sup>221</sup> the owner or operator of a facility<sup>222</sup> that possesses an extremely hazardous substance in excess of the TPQ must notify the state emergency response commission within sixty days of the acquisition of the substance or revision of the list. In addition, a facility must provide requested information to the emergency planning committee (or the governor in the absence of a committee) for developing and implementing the emergency plan. Similarly, under CERCLA, a facility that stores, treats, or disposes of hazardous substances must notify the EPA of its existence, specify the amount and type of any hazardous substance to be found there, and indicate any known, suspected, or likely releases of such substances.

Facility owners and operators must file various forms<sup>223</sup> intended to provide reasonably accessible notice to the public. These forms include: (1) material safety data

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42 U.S.C. §11002(a).

<sup>219</sup>See generally 42 U.S.C. §§ 11001-11005.

<sup>219</sup>42 U.S.C. §11002(c). EPA requires the owner or operator of a facility to determine the total amount of a regulated substance at the facility regardless of location, number of containers, or method of storage. The amount of extremely hazardous substances present in mixtures or solutions in excess of one percent must be included in the determination. 40 C.F.R. §355.30(a).

<sup>220</sup>42 U.S.C. §11002(b).

<sup>221</sup>42 U.S.C. § 11002(c).

<sup>222</sup>A facility is defined to include all buildings, equipment, structures, and other stationary items located on a single site or on contiguous or adjacent sites which are owned or operated by the same person. 42 U.S.C. § 11049(4). For the purposes of EPRCA section 304, 42 U.S.C. § 11004 (relating to emergency notification), the term "facility" includes motor vehicles. 42 U.S.C. § 11049(4). Facilities do not include those owned or operated by the United States. 42 U.S.C. § 11049(7). This is because the term "person" under EPRCA, while including individuals, corporations, states, and municipalities, does not include the United States. Thus, the United States is exempt from complying with EPCRA. *Id.*

<sup>223</sup>See generally 42 U.S.C. §§ 11021-11023.

sheets;<sup>224</sup> (2) emergency and hazardous chemical inventory forms;<sup>225</sup> and (3) toxic chemical release forms.<sup>226</sup>

#### **4.4.2 Emergency Notification of Releases.**

Emergency notification is an essential element of EPCRA's emergency planning.<sup>227</sup> Releases<sup>228</sup> of substances are divided into four categories: (1) substances appearing on the extremely hazardous substance list and requiring CERCLA notice; (2) substances that are on the extremely hazardous substance list but not requiring CERCLA notice; (3) substances not appearing on the extremely hazardous substances list from a facility where a hazardous chemical<sup>229</sup> is produced, used, or stored and where such release requires notification under CERCLA section 103(a) and where the substance is one for which a reportable quantity (RQ) has been established under CERCLA section 102(a); and (4) substances not appearing on the extremely hazardous substance list from a facility at which a hazardous chemical is produced, used or stored, and where such release requires notification under CERCLA section 103(a) but where no RQ has been established under CERCLA.<sup>230</sup>

The owner or operator of a facility must immediately communicate notice of a release to the community emergency coordinator for the local emergency planning committees likely

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<sup>224</sup>These forms contain information on the manufacture, use and storage of chemicals present at a given facility. 42 U.S.C. § 11021.

<sup>225</sup>These forms contain estimates of the maximum amount of hazardous chemicals present at the facility and their general location. 42 U.S.C. § 11022.

<sup>226</sup>These forms contain information as to the uses and amounts of toxic chemicals, the annual quantity of toxic chemicals entering the environment, and the disposal methods employed. 42 U.S.C. § 11023.

<sup>227</sup>See 42 U.S.C. § 11004.

<sup>228</sup>"Release" is defined as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discharging of barrels, containers, another closed receptacles) of any hazardous chemical extremely hazardous substance or toxic chemical." 42 U.S.C. § 11049(8).

<sup>229</sup>"Hazardous chemical" is defined by EPCRA as "the meaning given that term by section 1910.1200 (c) of title 29 of the Code of Federal Regulations ...." 42 U.S.C. § 11021(e). The specific definition therein is: "any chemical which is a physical hazard or a health hazard." 29 C.F.R. § 1910.1200(c). Physical hazard and health hazard are further defined in the Hazard Communication Standard.

<sup>230</sup>42 U.S.C. § 11004(a).

to be affected by the release and to the state emergency planning commission.<sup>231</sup> Following the release, the owner or operator must provide a written follow-up emergency notice, setting forth the aforementioned information.<sup>232</sup> The notice is to be updated with additional information, including actions taken to respond to and contain the release, any known or anticipated health risks resulting from the release, and advice regarding medical attention necessary for those individuals who have been exposed to the substance.<sup>233</sup>

#### 4.4.3 Trade Secrets.

Because EPCRA's reporting requirements might reveal protected trade secrets,<sup>234</sup>

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<sup>231</sup>42 U.S.C. § 11004(b). Notice must contain the following information, if known:

- (A) The chemical name or identity of any substance involved in the release.
- (B) An indication of whether the substance is on the list referred to in section 302.
- (C) An estimate of the quantity of any such substance that was released into the environment.
- (D) The time and duration of the release.
- (E) The medium or media into which the release occurred.
- (F) Any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals.
- (G) Proper precautions to take as a result of the release, including evacuation (unless such information is readily available to the community emergency coordinator pursuant to the emergency plan.)
- (H) The name and telephone number of the person or persons to be contacted for further information.

42 U.S.C. § 11004(b)(2).

<sup>232</sup>42 U.S.C. § 11004(c).

<sup>233</sup>*Id.*

<sup>234</sup>A person claiming trade secret designation must show that:

- (1) Such person has not disclosed the information to any other person, other than a member of a local emergency planning committee, an officer or employee of the United States or a state or local government, an employee of such person, or a person who is bound by a confidentiality agreement, and such person has taken reasonable measures to protect the confidentiality of such information and intends to continue to take such measures.

Congress authorized regulated parties to withhold trade secrets from state commissions and local committees.<sup>235</sup> The authority to withhold trade secrets is limited and subject to reporting and approval from EPA. In addition, any person may petition EPA for disclosure of the identity of a substance that has been designated a trade secret. In recognition of the seriousness of the protection of trade secrets, criminal penalties are prescribed for the unlawful disclosure of such secrets.

Any person required to submit information under EPCRA may withhold the specific chemical identity of a hazardous chemical, an extremely hazardous substance, or a toxic chemical pursuant to EPA regulations.<sup>236</sup> To receive the benefit of this protection, the owner or operator must satisfy specific requirements.<sup>237</sup> In place of the specific chemical identity, the owner or operator must include the generic class or category of the hazardous chemical, extremely hazardous substance, or toxic chemical.

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(2) The information is not required to be disclosed, or otherwise made available, to the public under any other Federal or State law.

(3) Disclosure of the information is likely to cause substantial harm to the competitive position of such person.

(4) The chemical identity is not readily discoverable through reverse engineering.

42 U.S.C. § 11042(b).

<sup>235</sup>42 U.S.C. § 11042.

<sup>236</sup>42 U.S.C. § 11042(a)(1)(A).

<sup>237</sup>A person may withhold information as a trade secret provided the person:

- (1) claims that such information is a trade secret, on the basis of the factors enumerated in section 11042;
- (2) includes in the submittal referred to in section 11042 an explanation of the reasons why such information is claimed to be a trade secret, based on the factors enumerated in section 11042, including a specific description of why such factors apply, and
- (3) submits to the Administrator a copy of such submittal, and the information withheld from such submittal.

42 U.S.C. § 11042(a)(2)(A).

#### **4.4.4 Summary.**

The release of an extremely hazardous substance regulated by EPCRA during a CWC inspection would trigger notification and emergency response procedures. A facility owner or operator must provide notice and information relating to the release to the relevant state and local authorities. If certain requirements are met, the facility owner or operator will be able to withhold trade secret information from the relevant authorities.

## SECTION 5

### COMPLIANCE WITH FEDERAL STATUTES TO PROTECT PUBLIC SAFETY

In addition to problems of compliance with environmental protection statutes raised by the possibility of releases of pollutants as discussed in the previous section, verification activities will have to comply with broadly applicable health and safety regulations. Two federal statutes that protect public safety may apply to CWC inspections: the Occupational Safety and Health Act of 1970 (OSHA),<sup>238</sup> and the Hazardous Materials Transportation Act (HMTA).<sup>239</sup>

#### 5.1 OCCUPATIONAL SAFETY AND HEALTH ACT.

Congress enacted the Occupational Safety and Health Act (OSHA) to promote safe and healthful working conditions through the imposition of occupational safety and health standards, requirements for employee training and education, methods of operation, construction and maintenance requirements for specific industrial places of employment, and enforcement against employers who violate its standards or requirements. OSHA regulations identify hazardous substances, equipment, and activities found in the workplace<sup>240</sup> and establish procedures to ensure the safety of employees and prevent catastrophic accidents.<sup>241</sup>

The employer is responsible for carrying out OSHA's statutory duties. Therefore, the employer at an inspected facility would be responsible for maintaining occupational safety and health standards during a CWC inspection and for preventing a hazardous workplace

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<sup>238</sup>29 U.S.C. § 641 *et seq.*

<sup>239</sup>49 U.S.C. §§ 1801 *et. seq.*

<sup>240</sup>OSHA regulations govern general workplace housekeeping, specific machinery or equipment, specific hazardous materials, fire protection standards, personal protection equipment, specific activities (i.e. spray finishing or welding), and specific employee exposure limits. The regulations are either general standards applicable to any place of employment in any industry, or standards specifically applicable to a particular industry, condition, practice, means, method, operation, or process. Particular standards prevail over the general where applicable.

<sup>241</sup>These procedures may include informing employees of work hazards, training employees in handling and maintaining hazardous equipment or substances, supplying appropriate emergency response training and personal protection equipment, maintaining workplace facilities and equipment to reduce necessary hazards, limiting exposure to specific hazardous materials, and facilitating emergency response.



situation from developing due to the actions of the inspection team.<sup>242</sup> If the equipment brought on-site by the inspection but not owned by the employer or under its control does not meet OSHA requirements, the employer is responsible to prohibit employees from using such equipment.<sup>243</sup>

#### 5.1.1 Regulation of Hazardous Material.

Many OSHA regulations apply to the storage and handling of hazardous materials.<sup>244</sup> A number of factors will determine what standards may apply to a particular inspection, including: 1) the type of facility being inspected (i.e., chemical plant, processing plant, bulk storage area or laboratory); 2) the particular nature of the hazardous material being sampled (i.e., flammable, combustible, or toxic); and 3) the specific hazardous materials being sampled (i.e., inorganic arsenic,<sup>245</sup> ethyleneimine,<sup>246</sup> etc). In addition, each facility will have

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<sup>242</sup>CWC inspectors must obey safety regulations established at the inspected site, including those for protecting controlled environments and personal safety within a facility. Verification Annex, *supra* note 1, pt. II, E (43).

<sup>243</sup>OSHA Instruction STD 2-1.8, October 30, 1978. *See also* Bayside, 1974-75 CCH OSHD ¶ 18677, Bechtel Power Corp. (1979), OSHRC Docket No. 13832, California Stevedore & Ballast Co. (1974) OSHRC Doct No. 1132, 1973-74 CCH OSHD ¶ 18677.

<sup>244</sup>*See* 29 C.F.R. § 1910.101 *et seq.*

<sup>245</sup>29 C.F.R. § 1910.1018.

<sup>246</sup>29 C.F.R. § 1910.1012.

an occupational safety and health program with which the inspection team must comply.<sup>247</sup> Many hazardous materials have specific standards, exposure limits and safety requirements.<sup>248</sup>

For example, if the inspection team required a sample from an underground tank containing benzene in a processing plant, OSHA would determine the requirements for tank opening other than vents for underground tanks storing flammable materials,<sup>249</sup> the precautions for preventing ignition,<sup>250</sup> the personnel exposure precautions for benzene,<sup>251</sup> as well as the requirements for informing personnel drawing samples of the hazards of benzene and training such personnel in handling hazardous chemicals.<sup>252</sup>

### 5.1.2 Laboratory Activities.

Special regulations apply to occupational exposure to "hazardous chemicals" in laboratories.<sup>253</sup> Hazardous chemicals are chemicals for which there is statistically significant

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<sup>247</sup>The regulations governing the process safety management of highly hazardous chemicals target those chemicals that have the potential to cause a catastrophic incident. 29 C.F.R. § 1910.119. The standard as a whole is to aid employers in their efforts to prevent or mitigate episodic chemical releases that could lead to a catastrophe in the workplace and possibly to the surrounding community. Any facility which includes a process involving a highly hazardous chemical at or above the specified threshold quantities listed in the regulations must develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each regulated process. These operating procedures must include steps for each operating phase, process and equipment operating limits, safety and health considerations, safety systems, employee training, mechanical integrity, process maintenance, inspections, and emergency planning and response. Operating procedures must also include safe work practices to provide for the control of hazards during operations, including provisions for opening process equipment or piping, and controlled access to the facility by other than trained personnel.

<sup>248</sup>29 C.F.R. § 1910.1000, Tables 2-1-A & 2-2; § 1910.1026; § 1910.1028 (benzene); § 1910.1018 (arsenic); § 1910.1045 (acrylonitrile); § 1910.1001, 1007 (asbestos); § 1910.1008 (chloromethyl ether); § 1910.1006 (chloromethyl methyl ether); etc.

<sup>249</sup>See 29 C.F.R. § 1910.106(b)(3)(v).

<sup>250</sup>See 29 C.F.R. § 1910.106(h)(7)(b).

<sup>251</sup>See 29 C.F.R. § 1910.1028.

<sup>252</sup>See 29 C.F.R. § 1910.1200.

<sup>253</sup>29 C.F.R. § 1910.1450.

evidence that acute or chronic health effects may occur in exposed employees.<sup>254</sup> Each laboratory must have a Chemical Hygiene Plan.<sup>255</sup> For particularly hazardous substances (i.e., "select carcinogens," reproductive toxins and substances that are acutely toxic), specific areas must be designated, containment devices, contaminated waste removal and decontamination procedures must be included. All containers coming into the laboratory must be labeled and have material safety data sheets.<sup>256</sup> These limitations were seen in the SFD, where, under New Jersey regulations, every sample brought into the inspected facility's laboratory had to be identified by the Chemical Abstract Service (CAS) number. As a result, the inspection team could not bring in quality control check samples to test the analysis equipment.<sup>257</sup>

### 5.1.3 National Electrical Code.

Before bringing any equipment to an inspection site, particularly a mobile laboratory, the CWC inspection team must determine what electrical connections will be necessary. If the connections are to be within a hazardous area, they must comply with all OSHA and local fire code regulations prior to connection. Any connections must also comply with the National Electric Code (NEC), which establishes the minimum standards of wiring design and installation practice in the United States. The rules of the NEC are incorporated into ordinances passed by municipalities or local governmental bodies governing the installation of electrical wiring within their jurisdiction.

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<sup>254</sup>29 C.F.R. § 1910.1450(e). "Health hazard" includes: chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic systems and agents which damage the lungs, skin, eyes or mucous membranes. *Id.*

<sup>255</sup>29 C.F.R. § 1450(e). This plan must include: standard operating procedures, including engineering controls; personal protective equipment and hygiene practices; requirements for ensuring the proper functioning of fume hoods and other protective equipment; employee information and training provisions; the circumstances under which a particular laboratory operation, procedure or activity shall require the employer's approval before implementation; and special designated areas, containment devices, contaminated waste procedures and decontamination procedures for particularly hazardous substances (i.e., select carcinogens, acute toxicity and reproductive toxins).

<sup>256</sup>These special standards would apply if a laboratory were to perform non-routine, non-production-related tests using the laboratory's sophisticated analytical instruments. OSHA Interpretation, Record ID 3791, October 8, 1990. Therefore, an inspected facility's laboratory that performs routine standardized tests to monitor and support production processes would not be exempt if asked to perform non-routine analyses for the CWC inspection team.

<sup>257</sup>See CRDEC Field Report, *supra* note 115, at 44. See also N.J.A.C. 8:59 - 5.3.

OSHA also has specific electrical safety requirements, depending on the location, equipment, and materials involved.<sup>258</sup> These regulations govern all electrical installations and utilization equipment, including examination, installation and use of electrical equipment, design, grounding, cords and cables, and electrical equipment and installation within hazardous locations. Hazardous locations are classified into "classes" and "divisions" based on the properties of the flammable vapors, liquids or gases or combustible dusts or fibers which may be present and the likelihood that a flammable or combustible concentration or quantity is present. In such areas, all electrical equipment must be demonstrated to provide protection from the hazards arising from the combustibility and flammability of vapors, liquids, gases, dusts, or fibers.

The NEC contains guidelines for determining the type and design of equipment and installations that will meet OSHA requirements, although compliance with these NEC guidelines constitutes only one means of OSHA compliance.

Areas where flammable or combustible materials are stored, processed or packaged require additional precautions.<sup>259</sup> For instance, all electric wiring and equipment installed in a processing plant must meet general OSHA electrical requirements. However, where flammable vapor-air mixtures may exist under abnormal operating conditions (i.e., during sampling), the more stringent electrical codes for a Class I, Division 2<sup>260</sup> are to be enforced.<sup>261</sup> To illustrate, in the SFD, the inspection team discovered that the electric pump associated with the analysis instruments could not be used because of the facility's explosion hazard regulations.<sup>262</sup>

#### 5.1.4 Summary.

The employer at an inspected facility will be responsible for ensuring that occupational safety and health standards are applied to CWC inspection activities. Safety regulations established at the inspected facility must be followed by members of the inspection team and personnel of the inspected facility. The introduction of new substances

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<sup>258</sup>29 C.F.R. Subpart S.

<sup>259</sup>29 C.F.R. § 1910.106.

<sup>260</sup>29 C.F.R. § 1910.399.

<sup>261</sup>These requirements will be enforced within an extended area beyond the normal Division 1 area (5 feet in all directions from all points of vapor liberation) and an increased hazardous area from any pump, bleeder, withdrawal fitting, meter or similar device handling Class I liquids.

<sup>262</sup>CRDEC Field Report, *supra* note 115, at 45.

or operations may require facility owners to take additional steps to inform and train the inspection team and facility personnel.

OSHA regulations concerning the handling of hazardous materials and occupational exposure to hazardous materials in a laboratory setting will also apply to CWC inspections. Finally, the use of any equipment or electrical connections during a CWC inspection must conform to OSHA and National Electrical Code guidelines.

## **5.2 HAZARDOUS MATERIALS TRANSPORTATION ACT.**

CWC verification activities could involve subjecting samples to laboratory tests conducted off-site. If this occurs, samples must be transported from the inspection site to the laboratory in conformity with the Hazardous Materials Transportation Act (HMTA).<sup>263</sup>

The Department of Transportation has designated materials that it considers hazardous<sup>264</sup> and has issued regulations controlling the transportation of those materials.<sup>265</sup> Transported hazardous materials are identified by United Nations Identification numbers and organized into Classes which are further subdivided into Divisions.<sup>266</sup> Individual compounds are further organized into Packing Groups based on their toxicities.

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<sup>263</sup>49 U.S.C. §§ 1801 *et. seq.* In addition to the HMTA, provisions of the Resource Conservation and Recovery Act, 42 U.S.C. § 6922, regulate the transportation of hazardous waste. RCRA requirements need not be separately discussed since RCRA implementing instructions developed by the EPA have been coordinated with DoT to dovetail HMTA's requirements thereby precluding potential conflicts or omissions.

<sup>264</sup>These materials include, but are not limited to, explosives, radioactive materials, etiologic agents, flammable liquids or solids, combustible liquids or solids, poisons, oxidizing or corrosive materials, and compressed gases. 49 U.S.C. § 1803.

<sup>265</sup>49 U.S.C. § 1804 (a)(1). For general information, regulations and definitions, *see* 49 C.F.R. § 171.

<sup>266</sup>*See* 49 C.F.R. § 172.01. The Hazardous Materials Table specifies if the material is forbidden in transportation and provides the proper shipping name. The Table also references requirements pertaining to labeling, packaging, and quantity limits aboard aircraft and stowage of hazardous materials aboard vessels. The hazardous classes are indicated by a class or division number, its class name or by the letters "ORM" (other regulated material). *See* 49 C.F.R. § 173.2 for an accompanying class table.

Chemical agents classified as "poisonous liquids or gases" must be packaged in a proper container<sup>267</sup> and must be accompanied by appropriated shipping papers which identify the contents as poisons.<sup>268</sup> Such materials cannot be transported on aircraft or passenger carrying rail, but only by motor vehicle, cargo-carrying rail, or ship.<sup>269</sup>

In the unlikely event that samples will be transported internationally, such shipment will have to comply with applicable U.S. laws and regulations, the laws and regulations of any state through whose territory the shipments pass, and the recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods. If the samples are transported by air, the requirements of the International Civil Aviation Organization<sup>270</sup> must be followed.

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<sup>267</sup>49 C.F.R. § 172.101 specifies requirements for packaging poisonous materials. 49 C.F.R. § 173.192 specifies the authorized cylinders for non-bulk packaging of certain poisonous materials. 49 C.F.R. § 173.245 specifies bulk packaging for poisonous gases.

<sup>268</sup>49 C.F.R. § 172.202 describes an appropriate shipping description of a hazardous material. If the shipping name does not disclose the fact that the material is a poison, the word "Poison" must be entered on the shipping paper in association with the shipping description. 49 C.F.R. § 172.203(m)(1).

<sup>269</sup>Rail carriage of poisonous materials is detailed in 49 C.F.R. § 174.600. For cargo-carrying rail carriage, the transporting party must have a private track on which the poisonous material is to be delivered and unloaded. 49 C.F.R. § 176.600. For carriage by vessel, packages labelled "Poison" must be stowed clear of living quarters and ventilation ducts serving living quarters and separate from foodstuffs. 49 C.F.R. § 175.630. Motor vehicle requirements for poisonous materials must be made without unnecessary delay and delivered only to someone authorized to receive it. 49 C.F.R. § 177.853. Provisions for accidents or leakages by motor vehicle are found in 49 C.F.R. § 177.860.

<sup>270</sup>Codified in Annex 18 to the Convention on International Civil Aviation (Chicago 1944), as supplemented by the Technical Instructions for the safe transport of Dangerous Goods and the International Air Transport Association's (IATA) Dangerous Goods Regulations (DGR).

**SECTION 6**  
**FEDERALISM AND CWC COMPLIANCE WITH**  
**STATE ENVIRONMENTAL AND SAFETY LAWS**

CWC verification inspections must comply with applicable state laws. But, as a ratified treaty,<sup>271</sup> the CWC will be, under the Supremacy Clause of the United States Constitution, part of the "supreme Law of the Land" and take precedence over contrary state laws.<sup>272</sup> Because the CWC is a non-self-executing treaty<sup>273</sup> which will have operative effect under domestic law only upon enactment of implementing legislation,<sup>274</sup> it will be the CWC

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<sup>271</sup>The President, with the advice and consent of two-thirds of the Senate, has the power to ratify treaties. U.S. Const. art. II, § 2.

<sup>272</sup>*Missouri v. Holland*, 252 U.S. 416 (1920). The Supremacy Clause of the United States Constitution provides:

This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

U.S. CONST. art. VI, § 2.

<sup>273</sup>See E. Tanzman and B. Kellman, *HARMONIZING THE CHEMICAL WEAPONS CONVENTION WITH THE U.S. CONSTITUTION*, Technical Report No. DNA-TR-91-216 (Alexandria, VA: Defense Nuclear Agency, April 1992) and sources cited therein. A number of CWC provisions obligate State Parties to adopt implementing legislation. "Each State Party shall, in accordance with its constitutional processes, adopt the necessary measures to implement its obligations under this Convention." CWC, *supra* note 1, art. VII, § 1. The CWC requires parties to enact penal legislation to outlaw activities that violate the Convention. *Id.* § 1(b). Each State Party must also designate or establish a National Authority to act as liaison with the Organization and other State Parties. *Id.* § 4. But see Paust, *Self-Executing Treaties*, 82 A.J.I.L. 760, 773 (1992) (putting forth several arguments why "an obligation of signatories to assure that any necessary implementing legislation is forthcoming is not determinative" when identifying a non-self-executing treaty).

<sup>274</sup>See generally L. HENKIN, *FOREIGN AFFAIRS AND THE CONSTITUTION* (1972). *Aerovias Interamericanas de Panama v. Board of Commissioners of Dade County*, 307 F.2d 802 (5th Cir. 1962) *cert denied*, 371 U.S. 961 (1962). A treaty can be identified as non-self-executing if either of two factors is present. First, if the treaty is "incomplete . . . because it expressly calls for implementing legislation" it is non-self-executing. Second, if the treaty "calls for the performance of a particular affirmative act by the contracting sovereigns, which act or acts can only be performed through a legislative act," that treaty is non-self-executing. *Id.*

implementing legislation that will "preempt" contrary state laws as well as "repeal" pre-existing federal statutes with which it cannot be reconciled.<sup>275</sup>

Identifying potential difficulties posed by conflicts between the CWC implementing legislation and federal and state environmental law is especially complicated because of the nature of environmental and safety regulation in the United States. Modern environmental and safety statutes are characterized by a hybrid federal/state interaction whereby Congress establishes a nationally uniform statutory scheme, approves programs formulated by each state, and then delegates the hands-on conduct of the regulatory program to those states. These authorized/approved state programs then become a part of federal law and operate "in lieu of" the federal program.

In addition, a clause in each statute enables states to adopt standards more stringent than the federal standards. These more stringent standards may be part of an approved state plan or an independent state regulation. These clauses recognize the traditional police powers of the states in the area of environmental and safety regulation.

To maintain primary enforcement authority, states must meet minimum national standards and submit a plan at least as stringent as the federal standards. However, the EPA does retain back-up enforcement authority and can conduct inspections of regulated facilities. The EPA will only enforce state regulations that are part of the approved program and will not enforce state provisions that exceed the scope of federal regulation.

Two problems for the CWC inspection scheme are created by the federal/state interaction that characterizes environmental and safety regulation in the United States. First, because each state operates under a unique approved program, environmental and safety regulation, including permit requirements, is not uniform throughout the states. This lack of uniformity could pose a problem for facility owners and CWC inspectors, because different substances and activities may be regulated in different places. Entities that own facilities in more than one state will be required to negotiate different facility agreements for facilities in different states and to establish different in-house inspection guidelines. These facilities will also have permit concerns that vary from facility to facility. CWC inspectors will also be burdened because inspections will have to be conducted according to different regulations depending on the state where the inspected facility is located.

Second, state and local authorities could conceivably enact regulations that, if applied, would bar certain CWC inspection activities. Such regulations would be preempted by the

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<sup>275</sup>Cook v. United States, 288 U.S. 102 (1933). See also RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 115. Courts will strive to avoid finding a conflict between a federal act, such as a ratified treaty or a federal statute, and a prior federal act by construing the two federal laws in a manner that renders them both operative. See, e.g., Baker v. Carr, 369 U.S. 186 (1962); Blanco v. United States, 750 F.2d 53, 61 (2d Cir. 1985).



CWC and its implementing legislation allowing CWC inspection activities to proceed. Nevertheless, state and local cooperation will be essential to CWC verification and the concerns of state and local authorities should be addressed in some manner.<sup>276</sup>

This section summarizes the role of states under each federal environmental statute discussed in previous sections (with the exception of EPCRA which does not contain specific standards), and discusses alternatives for mitigating potential conflicts between state laws and the goals of CWC verification inspections.

## **6.1 ENVIRONMENTAL LAW AND AUTHORIZATION OF STATE PROGRAMS.**

The following subsections describe the provisions of each federal statute relating to the approval of state programs and the authority of states to develop their own standards. While the structure and administration of each statute is quite similar, the states' role under each statute varies slightly.

### **6.1.1 Clean Air Act.**

The CAA's programs provide for each state to prepare an implementation plan whereby the air quality control regions within it will attain federal ambient air quality standards. How that goal is to be accomplished is generally left to the states. In addition, a number of programs specifically provide that states are free to implement their own programs. Thus, there can be, and generally is, wide variation in the plans among states and also among different regions within the same state. While the result is intended to be national convergence toward uniform clean air standards, the obligations imposed on a facility in one part of the country may differ from the obligations imposed on a similar facility somewhere else.

The CAA expressly authorizes states to establish standards for the pollutants that are more stringent than those established by the EPA.<sup>277</sup> States also have the power to regulate substances not listed as part of the federal program. States have similar latitude in regulating of toxics of special concern for accidental releases.<sup>278</sup> As under the program for emission

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<sup>276</sup>L. HENKIN, ARMS CONTROL AND INSPECTION IN AMERICAN LAW 99-103 (1958). "Cooperation of executive and police officials of states and municipalities appears . . . clearly desirable and helpful. . . . There are certainly no obstacles under the law of the United States to voluntary cooperation between states and municipalities and an international arms inspectorate. . . ." *Id.* at 102.

<sup>277</sup>42 U.S.C. § 7412(d)(7).

<sup>278</sup>The CAA clearly provides that nothing shall preclude, deny or limit any right of a state or political subdivision to adopt regulations more stringent than the federal standard or to regulate a substance not subject to this subsection. 42 U.S.C. § 7412(r).

standards,<sup>279</sup> states may either list substances not included on the list or regulate listed substances more stringently than required under federal law.

The existence of a statutory list of 189 air toxics<sup>280</sup> raises two questions regarding the CWC: (1) will states list more than the 189 substances listed in the CAA? and (2) will states regulate substances more stringently than required under the federal standards?<sup>281</sup> Based upon a survey of several states where chemical weapons agent is currently stored, the answer to the first question is presented in Table 1, which sets out the current intent of these states to list additional substances.<sup>282</sup> The answer to the question of whether states will regulate more stringently, on the other hand, is not currently available from these states.

**Table 6-1. Will States list substances in addition to those listed in the 42 U.S.C. § 7412(b)(1)?**

States	List additional substances?
Alabama	no
Arkansas	no
Colorado	yes
Indiana	no
Kentucky	no
Maryland	yes
Oregon	currently no, but authority to regulate on case-by-case basis
Utah	currently no, but authority to regulate on case-by-case basis

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<sup>279</sup>See 42 U.S.C. § 7412(b).

<sup>280</sup>See 42 U.S.C. § 7412(b)(1).

<sup>281</sup>See 42 U.S.C. § 7412(d).

<sup>282</sup>While inspections could occur in any state where precursor pollutants are found, a survey of all 50 states was not possible.

### 6.1.2 Clean Water Act.

The NPDES program can be administered either by the EPA or by any state that has met certain minimum program requirements and has been authorized by the EPA to implement the program in that state.<sup>283</sup> To be approved, the state program must issue permits that assure compliance with the effluent limitations established under federal law.<sup>284</sup> A state with final authorization administers the NPDES program in lieu of the EPA. However, the EPA retains an unusual degree of control in spite of the delegation to the state.<sup>285</sup>

Nothing in the CWA or the regulations precludes a state from adopting or enforcing requirements that are more stringent or more extensive than those developed by the EPA.<sup>286</sup> Furthermore, pretreatment requirements established by any state or local law which are not in conflict with federal pretreatment standards are valid and enforceable.<sup>287</sup> However, if an approved state program is of greater scope than the requirements under federal law, the additional coverage is not part of the federally approved program.<sup>288</sup>

### 6.1.3 Resource Conservation and Recovery Act.

RCRA requirements can be administered either by the EPA or by any state that has met certain minimum program requirements and has been authorized by the EPA to implement a hazardous waste program in that state.<sup>289</sup> The state must submit a program for approval that

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<sup>283</sup>33 U.S.C.A. § 1342; 40 C.F.R. § 123.

<sup>284</sup>33 U.S.C. § 1342(b)(1)(A).

<sup>285</sup>For example, each state with a permit program must transmit a copy of each permit application and must provide notice to the EPA of its action thereon. If the EPA objects, within 90 days, to the issuance of the permit as being outside the guidelines and requirements of the Act, the permit may not issue. 33 U.S.C. § 1342(b)(2). If the state will not reissue the permit modified to meet the EPA's objection, the EPA can issue the permit itself.

<sup>286</sup>33 U.S.C. § 1370; 40 C.F.R. § 123.1(i).

<sup>287</sup>33 U.S.C. § 1317(b)(4).

<sup>288</sup>40 C.F.R. § 123.1(i). For instance, if a state requires a permit for indirect discharges to POTWs, such permits cannot be NPDES permits. *Id.*

<sup>289</sup>42 U.S.C.A. § 6926; 40 C.F.R. § 270. Thus, states with final authorization administer the hazardous waste program in lieu of the EPA. Prior to the enactment of the Hazardous and Solid Waste Amendments of 1984 (HSWA), states were required to change their regulations to reflect any subsequent changes in federal requirements. These federal requirements did not take effect until state amendments were adopted. Under HSWA, the EPA implements the federal

includes provisions for permitting, compliance evaluation, enforcement, public participation, and sharing of information.<sup>290</sup>

Nothing precludes a state from adopting or enforcing requirements which are more stringent or more extensive than those required by the federal regulations.<sup>291</sup> More stringent regulations may be enforced as part of the approved state program and, if necessary, may be enforced by the EPA.<sup>292</sup> However, provisions of the state program that are broader in scope than RCRA are not enforced as part of the approved state program and must be enforced as state requirements.<sup>293</sup>

#### **6.1.4 Occupational Safety and Health Act.**

OSHA requirements can be administered either by the U.S. Occupational Safety and Health Administration or by any state that has met certain minimum program requirements and has been authorized by the U.S. Department of Labor to implement an occupational safety and

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regulatory provisions imposed by HSWA even in authorized states until the states adopt HSWA requirements and obtain additional HSWA authorization. The HSWA provisions include: the listing of additional wastes, the exclusion of specific wastes, additional standards for the management of specific wastes, additional regulations for generators of 100-1,000 kg/mo of waste, land disposal restrictions, changes in the methodology for determining the toxicity characteristics of waste, and boiler and industrial furnace requirements. Therefore, a dual EPA/state regulatory agency program may now exist in some states with final authorization, and an inspection must comply with the appropriate requirements.

<sup>290</sup>40 C.F.R. § 271.1. *See also* 42 U.S.C. § 6929.

<sup>291</sup>42 U.S.C. § 6929; 40 C.F.R. § 271.1(i).

<sup>292</sup>42 U.S.C. § 6928(a)(2).

<sup>293</sup>A state program is "broader in scope" if it either expands the size of the regulated community or incorporates elements that do not have a federal counterpart, such as requiring permits for federally exempt activities or listing wastes which are not federally listed. More stringent state program requirements are those which have a direct federal counterpart. For example, where a state has required a shorter duration of time (permits only valid for a year), stricter management standards or additional recordkeeping (an annual rather than biennial report). *See RCRA/Superfund Hotline Questions and Answers, RCRA-66, RCRA Regulations and Keyword Index* (compiled and published by McCoy & Ass., Inc. 1992).

health program in that state.<sup>294</sup> A state with final approval administers the hazardous program in lieu of the Administration.<sup>295</sup>

Any state desiring to assume responsibility for development and enforcement of occupational safety and health standards with respect to a federal standard must submit a state plan. The Secretary of Labor will approve the plan if the plan provides for the development and enforcement of safety and health standards which are at least as effective as the federal standards. Nothing in OSHA prevents any state from asserting jurisdiction under state law over any occupational safety or health issue with respect to which no federal standard is in effect.<sup>296</sup>

#### **6.1.5 Summary.**

It will be impossible to create uniformity by requiring that CWC inspections be conducted according to federal standards because the state-approved plans are the heart of environmental and safety regulatory regimes. While the federal government has provided guidelines to direct the states in developing their programs, no uniform or minimum federal standards exist that could be applied in place of the state programs. As a result, federal environmental and safety law varies from state to state to such a degree that the standards that apply to industries, including permit requirements, are actually developed and administered by the states. Uniform standards applicable to a specific activity throughout the United States can be achieved only by Congress or an appropriate federal agency drafting separate standards under relevant federal law.

#### **6.2 FEDERAL PREEMPTION OF NON-APPROVED STATE AND LOCAL STANDARDS.**

In the event that a state or local environmental or safety regulation impedes CWC compliance, and if that regulation is not a part of a federally-approved state plan,<sup>297</sup> the CWC

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<sup>294</sup>29 U.S.C.S. § 667.

<sup>295</sup>29 U.S.C.S. § 667(e). For the first three years after a state plan has been in place the Secretary may review the standards promulgated under the state plan, if satisfied that the plan is in compliance with the federal requirements, he or she shall make such a determination. After such a determination has been made, the federal standards shall not apply with respect to any issues covered under the state plan.

<sup>296</sup>29 U.S.C.S. § 667(a).

<sup>297</sup>Because the federal government and authorized states have concurrent authority, and because approved state programs are federal law, the preemption doctrine will only apply to those state regulations that are not part of the approved plan.

would "preempt" that law. "No state [or local government] can . . . frustrate the national effort to achieve peace and security by agreement with other nations to control arms."<sup>298</sup>

A federal act<sup>299</sup> can preempt an inconsistent state or local statute in any of three ways.<sup>300</sup> First, Congress' statutory language may expressly preempt state law.<sup>301</sup> Second, courts will apply preemption if the statute sets up a regulatory scheme that is so pervasive that Congress has "occupied the field" -- such that any state or local law in the field is preempted by implication.<sup>302</sup> Third, even if preemption is neither express nor implied, state and local laws are preempted to the extent that they "conflict" with federal law.<sup>303</sup>

State or local laws "conflict" with federal acts if 1) compliance with both federal and state law is impossible, or 2) the state law "stands as an obstacle to the accomplishment of the full purposes and objectives of Congress."<sup>304</sup> While courts seek to avoid a conflict between a new treaty or federal statute and a pre-existing federal statute, courts are not as hesitant when

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<sup>298</sup>L. HENKIN, ARMS CONTROL AND INSPECTION IN AMERICAN LAW 99 (1958).

<sup>299</sup>Rules and regulations promulgated by federal agencies under proper delegation from the Congress will, likewise, preempt state action. *Arkansas Louisiana Gas Co. v. Hall*, 453 U.S. 571 (1981).

<sup>300</sup>Congress may preempt state law whenever it exercises any of its enumerated constitutional powers. These powers include: the Treaty Power under Art. II, § 2 (*see, e.g., Missouri v. Holland*, 252 U.S. 416 (1920)); the Commerce Power under Art. I, § 8 cl. 3 (*see, e.g., City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978)); and its War Powers under Art. I, § 8 (*see, e.g., Peel v. Florida Dept. of Transp.*, 600 F.2d 1070 (5th Cir. 1979)).

<sup>301</sup>*Michigan Canners & Freezers v. Agricultural Mktg. & Bargaining Bd.*, 467 U.S. 461, 469 (1984).

<sup>302</sup>Express or implied preemption must be the "clear and manifest purpose of Congress." *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947). That Congressional purpose may be evidenced in several ways. First, "the scheme of federal regulation may be so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it." Second, "the Act of Congress may touch a field in which the federal interest is so dominant that the federal system will be assumed to preclude enforcement of state laws on the same subject." Third, "the object sought to be obtained by the federal law and the character of obligations imposed by it may reveal the same purpose." *Ray v. Atlantic Richfield Co.*, 435 U.S. 151 (1978) (quoting *City of Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624, 633, 93 S.Ct. 1854 (1973)).

<sup>303</sup>*Id.*

<sup>304</sup>*Hines v. Davidowitz*, 312 U.S. 52, 67 (1941).

it comes to a clash between a federal statute and a state statute.<sup>305</sup> Nevertheless, preemption will never be presumed and is strictly construed.<sup>306</sup>

It is important to note that state and local officials will be entitled to participate in planning and executing CWC inspections. For example, state officials might wish to accompany the inspection team to verify that approved state standards are being followed. Congress could choose to repeal the provisions of federal law that include state officials because such involvement would add an unnecessary level of bureaucracy to the CWC verification process. The involvement of state officials could also represent an inappropriate intrusion of state regulation into the national defense and foreign affairs prerogatives of the federal government. However, any such repeal would have to be explicit.<sup>307</sup> Alternatively, some subset of federal regulations could be applied that would promote uniformity and minimize opportunities for state interference.

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<sup>305</sup>Baker v. Carr, 369 U.S. 186 (1962).

<sup>306</sup>See Chicago & N.W. Transp. v. Kalo Bucks Tile, 450 U.S. 311, 317 (1981).

<sup>307</sup>A federal statute or treaty will supersede or repeal a prior federal a statute or treaty to the extent that the two are inconsistent and Congress' intent to do so was clear. However, courts will strive to harmonize prior federal acts with subsequent federal acts. Blanco v. United States, 750 F.2d 53, 61 (2d Cir. 1985). Thus, if the CWC or its implementing legislation were to come into such a conflict, then it must be determined if Congress intended to repeal the prior federal act when it approved the CWC or its implementing legislation.

If the repeal is not explicit, the only other means of finding a repeal is a "repeal by implication." Morton v. Mancari, 417 U.S. 535 (1974). Repeals by implication are not favored and will only be found if two conditions are met: 1) "the intention of the legislature to repeal must be clear and manifest", T.V.A. v. Hill, 437 U.S. 153, 189-90 (1978) (quoting Morton v. Mancari, 417 U.S. 535, 551 (1974)), and 2) the language of the pre-existing statute and the language of the newly ratified treaty or newly enacted statute must be compared to determine if there is a "positive repugnancy" between them that makes the two federal acts irreconcilable. *Id.* at 190 (quoting Wood v. United States, 41 U.S. 342, 363 (1842)).

## **SECTION 7 CONCLUSIONS AND RECOMMENDATIONS**

The CWC requires that verification activities be conducted in accord with national environmental and safety standards. In the United States, Congress is responsible for ensuring that this obligation is met. That responsibility will no doubt be exercised in response to whatever political forces are roused by the confluence of the CWC's international security goals with the objectives of environmental and safety regulation. The following recommendations do not aspire to resolve political tensions, but merely propose options that drafters of CWC implementing legislation should focus on in order to simultaneously satisfy three distinct sets of interests:

- Maximizing CWC compliance;
- Minimizing burdens on facility owners; and
- Clarifying the role of state and local interests.

### **7.1 MAXIMIZING CWC COMPLIANCE.**

As a Party to the CWC, the United States will be committed to complying with its terms. To the extent that domestic statutes are inconsistent with CWC compliance, efforts must be undertaken to harmonize these laws in a manner that achieves the fullest realization of the CWC's goals. Thus, national environmental and safety standards should not be cited to justify less than complete observance of CWC obligations.

In the United States, national environmental and safety standards are implemented through state-enforced plans. Thus, fulfilling CWC objectives could be subject to a myriad of different regulations. To promote compliance, Congress should make environmental and safety obligations uniform. Furthermore, foreseeable problems and potential conflicts should be identified and plans prepared in advance.

#### **7.1.1 Option 1.**

Congress could specify in the implementing legislation the environmental and safety standards that would apply to CWC inspections. All relevant participants, including inspectors and facility managers, would have to observe only these specified standards and all other standards would be inapplicable. Alternatively, the implementing legislation could specify that the National Authority or the EPA is to develop these standards.



### **7.1.2 Option 2.**

Congress could delegate to the National Authority the task of negotiating facility agreements that define applicable environmental and safety standards for inspections at declared facilities. This option has the advantage of offering flexibility to apply different standards to different declared facilities depending on their location and characteristics, and CWC inspectors would have sufficient advance notice of these distinctions to plan accordingly. While uniformity of CWC inspection procedures would not be achieved as efficiently as with option 7.1.1, this option has the advantage of maintaining pre-existing requirements without establishing a whole new set just to accommodate CWC inspections. This option has the disadvantage of applying only to facilities for which facility agreements are negotiated and therefore would be irrelevant both to routine inspections of undeclared facilities and all challenge inspections.

## **7.2 MINIMIZING FACILITY OWNERS' BURDENS.**

To promote international security, the CWC will impose substantial burdens on the owners of facilities subject to on-site inspection. Congress should limit these burdens to only what is necessary to comply with the CWC. As discussed, facility owners with notice of inspections (i.e., producers or users of scheduled chemicals) might be required to seek permit modifications and amend their emergency response plans in anticipation of the possible consequences of a CWC inspection. Again, foreseeable problems and potential conflicts should be identified and plans should be prepared in advance. Facility owners should not be responsible for unforeseeable legal problems that are exclusively the result of CWC inspections. The following options represent an array of possibilities that could be included in the CWC implementing legislation.

### **7.2.1 Option 1.**

Congress could amend relevant environmental and safety laws to expedite the process of obtaining permit modifications and amending emergency response plans in anticipation of CWC inspections. The implementing legislation could empower a specific official, either within the EPA or the National Authority, to be responsible for handling requests relating to a CWC inspection.

### **7.2.2 Option 2.**

Congress could require the National Authority to notify all facilities subject to routine CWC inspections of their obligations under environmental and safety laws. The National Authority could also provide guidance to these facilities as to how to satisfy any requirements.

### **7.2.3 Option 3.**

Congress could empower the National Authority to negotiate facility agreements to minimize the need for permit and emergency response plan modifications, or alternatively, notify

facility owners that such modifications are required under law. Accordingly, the National Authority could be instructed to initiate facility agreements with Schedule 3, "other", and PSF facilities, as provided for in the CWC.

#### **7.2.4 Option 4.**

Congress could reduce penalties for inspected facilities that fail to pursue permit and emergency response plan modifications prior to inspections, especially in cases without seriously harmful consequences. This option might be especially appropriate to deal with challenge inspections where the facility owner has little notice of, nor reason to foresee an inspection, and thus has little opportunity to obtain modifications.

#### **7.2.5 Option 5.**

Congress could exempt all inspected facilities from liability under environmental and safety regulations either for unforeseeable consequences of inspections or for only those consequences other than permit exceedances or inadequate emergency response plans. This would have the effect of maintaining the obligations of declared facilities to take precautionary steps prior to an inspection, but would relieve these facilities from risk that an inspection-related event beyond their control could subject them to liability.

### **7.3 CLARIFYING THE ROLE OF STATE AND LOCAL INTERESTS.**

Two clear policies should not be allowed to come into conflict. First, state and local officials representing the diverse interests of the citizens in the vicinity of an inspected facility have a legitimate claim to be included in CWC verification activities. Second, the CWC, a binding international agreement entered into by the United States to promote security, cannot be impeded by inconsistent state or local regulations. Congress' task, therefore is to recognize the interests of persons and organizations within the vicinity of an inspection in a manner that allows the CWC to proceed without fear of unnecessary interference.

#### **7.3.1 Option 1.**

Congress could completely occupy the field and thereby preempt any state or local statute or regulation that might impact on CWC inspections.

#### **7.3.2 Option 2.**

Congress could provide that all state and local laws that are inconsistent with CWC obligations, whether previously enacted or enacted after ratification, are preempted. Laws are inconsistent if and when they actually impede the execution of a CWC inspection.

### **7.3.3 Option 3.**

Congress could establish a procedure to determine whether a state or local law is in fact inconsistent with the CWC. One alternative would be to delegate to the National Authority or the EPA the power to so decide. Another alternative would be for Congress to leave determinations of inconsistency to the courts to resolve on a case-by-case basis.

### **7.3.4 Option 4.**

Congress should specify as clearly as possible the role that state and local officials should have in the planning, preparation, and execution of CWC inspections, from participation in preliminary environmental planning to providing for police to secure the perimeter of an inspected site.

## **7.4 SUMMARY.**

The preceding recommendations reflect the need for Congress to respond to three distinct sets of interests. However, these interests are neither exclusive nor severable. Congress will have to decide: (1) how much it should specify the standards for CWC inspections or how much it should delegate this responsibility to the National Authority or the EPA; (2) how much it should alter standards to deal with the problem of CWC inspections; and (3) how much it should preempt the role of state and local officials. Each issue presents thorny political questions, and the preceding options should be seen as a menu from which Congress can fashion solutions.

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#### JAYCOR

ATTN: CYRUS P KNOWLES

#### KAMAN SCIENCES CORP

ATTN: DASIAC

#### KAMAN SCIENCES CORPORATION

ATTN: DASIAC

#### SCIENCE APPLICATIONS INTL CORP

12 CY ATTN: CVR MR FARGO

### DIRECTORY OF OTHER

#### DIVISION OF CONTINUING EDUCATION

ATTN: DR JOHN REDICK



## Defense Threat Reduction Agency

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Ft Belvoir, VA 22060-6201

TDANP-TRC

August 1, 2001

MEMORANDUM TO DEFENSE TECHNICAL INFORMATION CENTER  
ATTN: OCQ/MR LARRY DOWNING

SUBJECT: DOCUMENT CHANGES

The Defense Threat Reduction Agency Security Office reviewed the following documents in accordance with the Deputy Secretary of Defense Memorandum entitled, "Department of Defense Initiatives on Persian Gulf War Veterans' Illnesses" dated 22 March 1995, and determined that the documents were unclassified and cleared for public release:

DNA-TR-93-84, AD-B244408, Acoustic Resonance Spectroscopy in CW Verification Tooole Field Trial (August 1992).

DNA-TR-93-129-V1, AD-B192045, Global Proliferation – Dynamics, Acquisition Strategies and Responses, Volume 1 – Overview.

DNA-TR-93-129-V2, AD-B192046, Global Proliferation – Dynamics, Acquisition Strategies and Responses, Volume 2 – Nuclear Proliferation.

DNA-TR-91-216, AD-B163637, Harmonizing the Chemical Weapons Convention with the United States Constitution.

DNA-TR-92-180, AD-B175230, Evaluation of the Concept of a List for the BWC.

DNA-TR-92-61, AD-B167663, Basic State Party Functions and Skills Under CWC.

DNA-TR-92-66, AD-B167357, Domestic Reporting Requirements for Chemical Industry.

DNA-TR-91-213, AD-B163260, Analysis of the Interactions Between Treaties.

DNA-TR-93-70, AD-B177262, Chemical Weapons Convention Inspections of Private Facilities Application of United States Environmental and Safety Laws.

DNA-TR-92-182, AD-B173450, Commercial Products from Demilitarization Operations.

DNA-TR-91-217-V3, AD-B169350, Chemical Weapons Process Parameters, Volume 3 – Users' Guide.

DNA-TR-92-116-SUP, AD-B175292, Technical Ramifications of Inclusion of Toxins in the Chemical Weapons Convention (CWC), Supplement.

DNA-TR-92-128, AD-B175452, Task 1 Report Target Vapor Identification and Database Development.

DNA-TR-92-196, AD-B174940, Task 2 Report Algorithm Development and Performance Analysis.

DNA-TR-93-68, AD-B178109, CW Detection Instrument R&D Design Evaluation.

Enclosed is a copy of the referenced memorandum. If you have any questions, please call me at 703-325-1034.

*Arndith Jarrett*

ARDITH JARRETT  
Chief, Technical Resource Center